The National Future Farmer

Owned and Published by the Future Farmers of America

December-January, 1968-69

A test for the father whose son wants a gun.

What does your son hold important? Probably whatever is important to you.

Children learn from watching and understanding their parents. And they imitate what they see.

For that reason, we think you should ask yourself a few questions before buying your boy a gun.

Because the answers you give can tell if he's ready for the fun and responsibility that comes with shooting.

1. Do you have good judgement? No kid is born with this. He has to learn it from somebody along the way. If you make the right moves most of the time, most likely your boy will, too. And he'll be able to handle himself in the field.
2. Do you face up to small jobs as well as big ones? Your son's attitude towards work and even the way he plays is closer to your own than you probably think. If he takes his chores to heart and always does his level best, then he's a responsible young man.
3. Do people know they can count on you? The amount of stock a person places in his word hints a little about his character. Your boy's not going to let you down when he respects your word. You can count on his acting like a man. And behaving himself with a gun.

If you answered yes to these questions, we're confident your son is grown up enough to own his first gun. And we hope you'll start him off right with one of the finest 22s made:

Winchester 200 series. This is the gun your son can hand down to your grandson. The 200 Series shares the same quality gunsmithing as its big game brothers. Shoots 22 shorts, longs and long rifles. From top to bottom: lever action, slide and automatic. Prices start at $55.95. Go ahead, he's your boy.

Other Winchester 22s from $23.95 to $79.95.

WINCHESTER®

Winchester-Western, 275 Winchester Avenue, New Haven, Conn. 06504. Made in U.S.A. Available in Canada.

Some of the best road signs aren't even posted.

They're the warning signals road surfaces give drivers. Do you know them?

1 You've seen this sign running down the middle of traffic lanes. If it isn't yellow, what color is it?

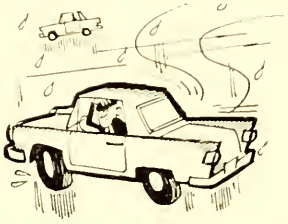
Black . . . and it's the oil and grease that drops from millions of cars. In a year's time, estimates say it can amount to as much as one gallon for every five feet of road. They're called lubricants because they reduce parts friction. They'll reduce tire traction, too. So watch out.

2 You might have to squint to see this one. It's always on the road to the beach but could be on any hard-surfaced road. What is it?

Sand or gravel. These two act like marbles under your tires and reduce your traction. So give yourself plenty of room to stop without braking hard.

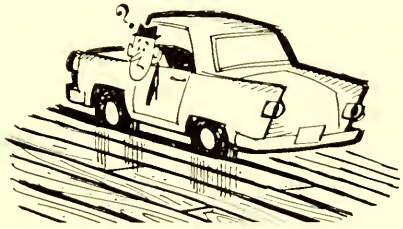
3 A very light sprinkle makes this sign pop up. Why?

Heavy showers tend to wash roads clean of dust, while a little rain will turn it into a slick film. This increases the danger of skidding. Showers are good for flowers but they make driving treacherous.



4 You might not come across this sign too often. It's on bridges made of wood.

Driving over wooden planks can be tricky but remember this. If the planking is laid parallel to your direction of travel, you can expect less traction than if they were laid crosswise. Be extra careful if they're wet.



5 Knowledge of road signs is important. But it won't do you any good unless your entire car is safe. That's why your nearby Firestone Safe Tire Center offers to give your car or your family's car a *free* safety check. And remember—Firestone tires are the first choice for original equipment on most new cars and for replacement on used cars.

Firestone

The safe tire

A Sponsor of National Student Traffic Safety Program, National 4-H Automotive Program and FFA.

The National Future Farmer
Owned and Published by the Future Farmers of America

DECEMBER-JANUARY, 1968-69

THE MAGAZINE FOR YOUNG MEN IN AGRICULTURE

VOLUME 17 NUMBER 2

In This Issue

FEATURES

10 **Focus Fortieth Anniversary**

THE 40TH ANNIVERSARY CONVENTION WAS ONE OF FFA'S MOST OUTSTANDING CONVENTIONS. OVER 13,000 PEOPLE WERE IN ATTENDANCE, THE LARGEST GROUP EVER TO BE PRESENT. FULL DETAILS WILL BE PRINTED IN THE CONVENTION PROCEEDINGS DISTRIBUTED TO STATES SOMETIME AFTER JANUARY 1, BUT THE HIGHLIGHTS OF THIS IMPORTANT FFA MEETING ARE PRESENTED IN THIS ISSUE.

17 **AgriOPPORTUNITIES**

THIS SECTION DESCRIBES THE VARIETY OF OPPORTUNITIES IN OFF-FARM AGRICULTURE AND THE EDUCATIONAL REQUIREMENTS FOR ENTRY INTO THE WORLD OF AGRIBUSINESS. INFORMATION SOURCES INCLUDE LEADERS IN AGRICULTURAL BUSINESS, COLLEGES AND UNIVERSITIES, AND MANY OF THE TRADE ASSOCIATIONS SERVING AGRICULTURE. YOU WILL WANT TO STUDY THIS SECTION CAREFULLY AND KEEP IT AROUND FOR FUTURE REFERENCE.

48 **"Beef" Up Your Herd**

THE BEAUTIFUL, IMPRACTICAL CHAMPIONS THAT LITERALLY WADDLED IN AND OUT OF THE SHOW RING DURING PAST DECADES ARE DOOMED IN THE COMPETITION OF TOMORROW, ACCORDING TO A NEBRASKA CATTLEMAN. THE AUTHOR IS A BREEDER OF REGISTERED BEEF CATTLE. HE TELLS THE READER HOW TO UPGRADE HIS BEEF HERD TO PRODUCE CATTLE THAT ARE NOT ONLY ATTRACTIVE BUT ECONOMICAL FOR THE BUYERS AS WELL.

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Our Cover

The snowmobile has become increasingly popular in recent years, and FFA members are getting in on some of the fun. Our cover this issue shows two members of the Hibbing, Minnesota, Chapter on an outing. They are Richard Stalboerger, left, and Jeff Paul. The color photograph was provided by Raymond W. White, vocational agriculture instructor and FFA advisor at Hibbing High School.

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THE NATIONAL FUTURE FARMER is mailed every two months on the following dates:

January 20.....**FEBRUARY-MARCH** Issue
March 20.....**APRIL-MAY** Issue
May 20.....**JUNE-JULY** Issue
July 20.....**AUGUST-SEPTEMBER** Issue
September 20..**OCTOBER-NOVEMBER** Issue
November 20..**DECEMBER-JANUARY** Issue

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Lester Haltli uses just one grease for all his farm equipment.

Is he taking the easy way out?

You bet he is. But for Lester, the easy way is also the best way.

He's using Texaco's Marfak Multi Purpose. Made to protect virtually every point on your farm machinery that needs grease.

Lester says it's keeping five tractors, a baler, a combine, a spreader, two plows, and five trucks in good shape on his 440-acre farm in Fosston, Minnesota.

No matter how tough the job, Marfak Multi Purpose is tougher. It gives vital protection. Fights rust and corrosion. Doesn't pound out, leak out, wear out. Resists washout. Has superior film strength.

Reports Lester Haltli, "It's so good, I've got less maintenance work to do. And repair bills don't drain my budget anymore."

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Quality petroleum products for the farm: Havoline and Ursa motor oils; Marfak Multi Purpose grease; Multigear lubricant EP; Rando HD oils for hydraulics; Fire Chief gasoline and Texaco Diesel Fuel.

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Contest Prize:
$795.00 Scholarship
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Draw the boxer any size you want except like a tracing. Use pencil. Every qualified entrant gets a free professional estimate of talent. Winner receives a complete course in commercial art. Students are taught, individually, by professional artists on the staff of one of America's leading home study art schools. Purpose of contest is to uncover hidden talents. Entries for the contest must be received by January 31, 1969. No entries can be returned. Our students and professional artists not eligible. Contest winner will be notified.

MAIL THIS COUPON TO ENTER CONTEST.

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Please enter my drawing in your contest. (PLEASE PRINT)

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Occupation_____ Age_____

Address_____ Apt._____

City_____ State_____

County_____ Zip Code_____

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Approved for Veterans Training.

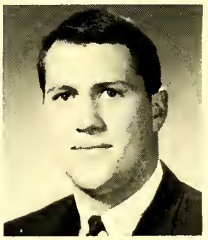
A Word with the Editor

A SPOT survey conducted by *The National FUTURE FARMER* at the National FFA Convention revealed some interesting information regarding career plans of those FFA members who were present. The survey was divided into two parts; one for FFA members of high school age and another for FFA members who have completed high school.

In the high school group, 88 percent reported they are conducting a supervised farming program, and 12 percent reported they were on job placement in an agriculturally related business. In this same group, 85 percent said they plan to continue their education after high school graduation. Of those students who plan to continue their education, 57.4 percent plan to attend a four-year college or university; 20.4 percent will go to a two-year community or junior college; and 22.2 percent plan to attend a vocational-technical school.

In the group that had finished high school, which admittedly contained many of those who received their American Farmer Degree at the convention, 46.7 percent reported they are now attending a four-year college or university, 12.4 percent were in a two-year community or junior college, 2.3 percent were in a vocational-technical school, and 38.6 percent were not in school. Of those members attending school beyond high school, 54.9 percent plan to return to farming or ranching and 36.2 percent plan to enter an agribusiness occupation. In the group reporting "not in school," 92 percent listed their occupation as farming.

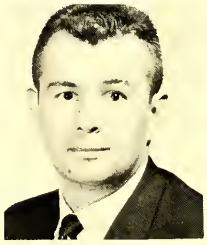
Midwest Sales Office



Thompson

Your national Magazine opened a sales office in Chicago last spring to serve advertisers in the Midwest. It is staffed by two former outstanding FFA members.

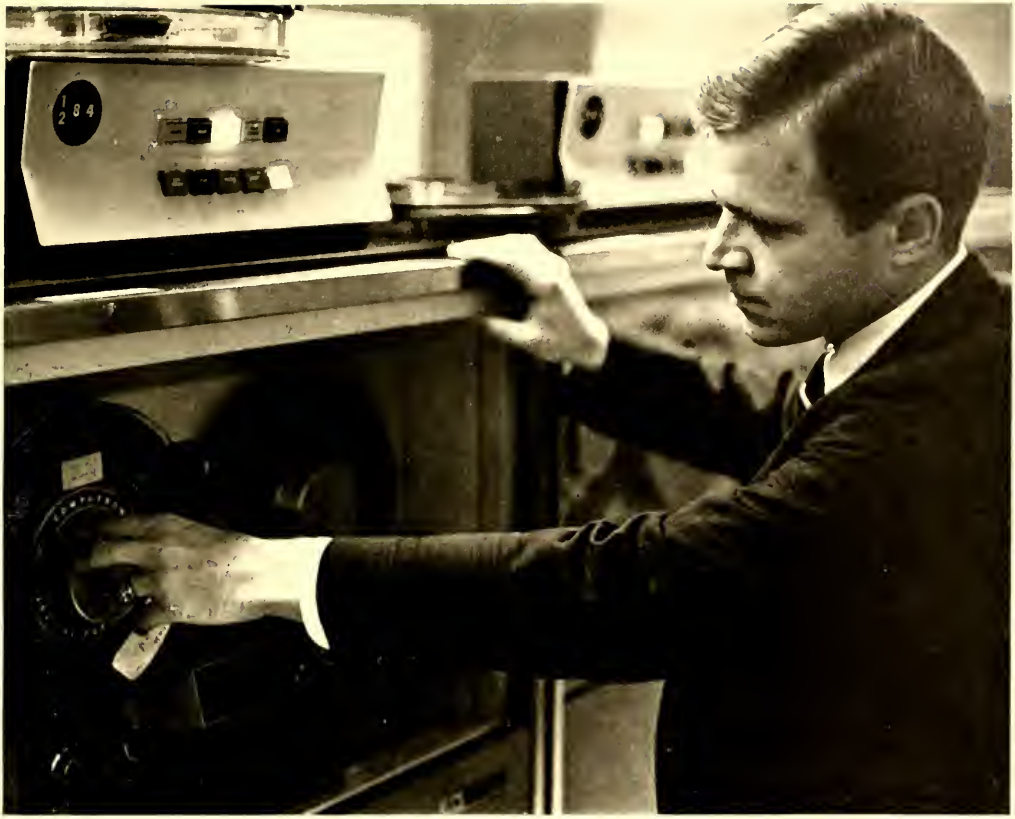
Richard R. Thompson is the Midwest advertising manager. Dick was reared on a 500-acre certified seed farm near Delphos, Ohio, and was active in the local FFA chapter. He served as president of both his local chapter and the Ohio FFA Association and holds the American Farmer Degree in the FFA. He is a graduate of Ohio State University and earned a master's degree in agricultural economics, specializing in marketing. Thompson joined the Magazine staff in 1966.



Leach

Duane Leach, national vice president of FFA in 1962-63, was appointed to the Midwest sales staff in July. He came to the Magazine from Wells, Minnesota, where he was a teacher of vocational agriculture and FFA advisor. While at Wells, his FFA general livestock judging teams placed high in contests throughout Minnesota and won several state hog judging contests. Duane is originally from Winnebago, Minnesota, and served FFA as chapter president, state treasurer, and national vice president. He also holds the American Farmer Degree. Duane is a graduate of the University of Minnesota with a degree in agricultural education.

Wilson Carnes
Editor



The latest step in the evolution of the scoop shovel.

Time was when animal rations were formulated with some grain, maybe some molasses, a strong back, a scoop shovel, and liberal doses of guesswork.

But today the scoop shovel and guesswork are gone; this is the day of the computer, the PhD, and sophisticated approaches to manufacturing and marketing.

That's the way it is in agriculture. Today the production of food and fiber is the nation's largest industry, and the young man or woman with a future in agribusiness might be a computer scientist, an economist, a statistician, a microbiologist, a pharmacologist, a management specialist, a journalist, a psychologist, an electronic engineer, a biochemist, a veterinarian, a mechanical engineer, a physicist or any of a whole host of others.

Here's where it's happening—in agribusiness. It's the industry with opportunity . . . to serve . . . to grow.

For more information on careers in agribusiness, write Department 259.

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Looking Ahead

Livestock

PRECONDITIONED CATTLE—If you are buying preconditioned feeder cattle, make sure they are preconditioned. Sometimes they are labeled as preconditioned but are not, warns John Herrick of Iowa State University. The object of preconditioning is to cut down on the incidence of disease. Ideally, this means that the calves should be weaned for at least 30 days, started on feed, vaccinated properly, treated for grubs, and checked for worms. They should be certified by a veterinarian as having received such treatment. Ask to see the certificates.

LARGER DAIRY FARMS—Fewer and larger dairy farms will be producing the bulk of the U.S. milk supply in the next ten years, according to Truman F. Graf, University of Wisconsin economist. He reports this trend will result in a substantial increase in milk production. There were about 460,000 dairy herds in the United States at the end of 1967, according to Graf. In the late 1970's, this number will reduce to about 200,000. Most of these herds will be in the 60 to 100-cow category and will be the big producers of milk.

FLY CONTROL—A new fly control product which reportedly will control flies for weeks has been introduced by the Shell Chemical Company. It is called Rabon, and tests indicate it is effective in reducing fly population in dairy barns, hog houses, livestock sheds, and calf pens. The insecticide is sprayed on the walls and ceilings with any conventional hydraulic and power sprayer or low pressure knapsack sprayer.

PIG LOSSES—An estimated 30 percent of all pigs born never reach market. They fall victim to a wide variety of ailments and accidents which rob the farmer of a sizeable chunk of his potential profits. Prominent among the causes of pig deaths is scours. Scientists at North Carolina State University who are working on the problem believe that early weaning will help if they can find a suitable milk substitute at a reasonable cost. They report soybean flour as a source of milk substitute looks promising.

CHEMICAL SHEEP SHEARING—Chemical defleecing of sheep may someday replace conventional shearing. USDA scientists at Beltsville, Maryland, are experimenting with chemicals that interrupt cell growth and permit the fleece to be pulled from the sheep six or seven days after being injected. It leaves no nicks or cuts but, unfortunately, it also leaves the sheep "naked" which could cause problems. Further tests are needed to determine whether or not the chemicals leave residues in the meat or affect wool growth or quality.

Crops

APPLE GROWTH REGULATOR—A new chemical spray for regulating the growth of apples has been introduced by Uniroyal. It is called Alar 85, and the manufacturer reports that it will stop drop, increase firmness, provide longer harvest period, improve storage life, and give better coloration on red apples. Must be used as directed. Shows promise of being used with other crops and fruits.

CHEMICAL WEED CONTROL—The use of herbicides to control weeds in cropland had increased to 27 percent of the U.S. crop acreage by 1966, according to USDA. Corn acreage treated with weed killing chemicals rose from 10 percent in 1962 to almost 60 percent in 1966, and for cotton, from almost nothing to over 50 percent. Herbicides were used on over half the acres planted in rice, peanuts, and potatoes.

FUMIGATE STORED GRAINS—Farm-stored grains often should be given a protective fumigation six weeks after they are put in bins, reminds Dell E. Gates, entomologist at Kansas State University. One annual fumigation probably will be sufficient where grain is stored under ideal conditions, but inspections are a must, Gates advises.

Management

FARM CENSUS—The 1969 Census of Agriculture will be taken by mail and will provide the essential figures for all farms, by counties, comparable with earlier census years. The definition of a farm will be the same as previous definitions. Places of less than ten acres will be counted as farms if 1969 sales of agricultural products are at least $250. Places of ten acres and more will be counted as farms if sales amount to at least $50.

REMODELED CORN CRIBS—Ear-corn cribs can be economically remodeled for shelled corn storage if they are sturdily built and in good condition, advises J. D. Blickle, agricultural engineer at Ohio State University. There are three basic steps in remodeling: 1. Strengthen the structure with wales, rods, cables, or banding. 2. Make the walls grain-tight; also make weather-tight if long storage periods are desired. 3. Provide for moving shelled corn into and out of storage.

HARVESTING ACCIDENTS—Farm harvesting accidents are costing more money every year, according to Norval Wardle, safety specialist at Iowa State University. In 1947, the average cost of a harvest-connected accident was $180. Last year, the average cost per accident in hospital bills, doctor bills, and lost time was $1,650. Rising medical and hospital charges have contributed to the increase. Other factors include speed of today's machinery which is also becoming more complex, requiring more highly skilled operators.

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We've heard just about every comment one would expect from our competitors since the David Brown Selectamatic diesel tractors were introduced in the United States.

1) They're made abroad! True, and so are other leading tractors.
2) You can't get parts! Not true. Through your 16 NEDA Distributors supplied from the David Brown Central Parts Depot, King of Prussia, Pennsylvania, you are assured of immediate delivery of replacement parts.
3) They haven't proven themselves! Not true. The David Brown Company is 104 years old and they manufactured their first tractors back in 1936.

We could go on, but why? Once you try a David Brown tractor, you'll realize it's at the head of the class in performance, power, economy and initial cost.

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FOCUS... FORTIETH ANNIVERSARY

Photos by Arch Hardy, Harry Thornton, and Ronald Miller

Delegates took up many issues at the exciting business session.

Directed by Mr. R. Cedric Anderson, the FFA Band plays the "FFA March."

President elect and former Vice President Nixon speaks at the National FFA Convention.

Contestants Dick Crone, Charles Hannum, Donald Pilkinton, and Rodney McCall participated in the national speaking contest.

The spotlight shines on the American Farmers as they stand before the convention audience during the American Farmer Degree ceremony.

FFA members talk with professional people at the Career Show about careers.

Voices of the National FFA Chorus, under the direction of Mr. Marvin Myers, sing "This Is My Country" during the pageant.

To many FFA members the pinnacle of the National FFA Convention is the impressive Star Farmer ceremony.

The FFA Pageant brought back historic memories of the first national judging contest at the American Royal in 1926.

As part of the Firestone Show the Brothers and Sisters entertain FFA members with songs and dances.

FOCUS . . . FORTIETH ANNIVERSARY

Charles "Jeff" Hanlon, 19, of Cornelius, Oregon, was elected to serve as the national FFA president for 1968-69. In 1967-68 Jeff held the office of state vice president for the Oregon FFA Association, and prior to this served as the northwest district president for his state association. Jeff's farming enterprise consists of a third interest in a 250-acre beef ranch. Cropland is devoted to timber or forage crops for the herd of 100 head of registered cattle. Jeff's activities at Hillsboro Union High School include service as school senator, state conservation speaking semi-finalist, and membership in the Oregon Youth Council.

Jerry Batts, a 19-year-old agricultural leader from Athens, Alabama, was elected to the office of national secretary for the FFA. Jerry's leadership qualities earned him a 1966-67 term as president of the Alabama FFA Association. His supervised farming program includes 18 acres of soybeans, 8 acres of cotton, plus peanuts, watermelons, cantaloupes, beef, and hogs. Jerry worked as editor of the school annual and newspaper at Clements High and twice spoke in state public speaking finals.

Thomas Johnson, the newly elected vice president of the FFA Central Region, hails from Ashland, Illinois. Tom, 20, is a former state president of the Illinois Association and served as president and vice president of the Ashland High Student Council. Tom's extensive farming enterprise consists of purebred dual-purpose cattle, purebred hogs, 40 acres of corn, and 40 acres of soybeans. He has spoken at 40 local chapter parent-son banquets and is a member of two livestock associations.

Glenn Weber, a 20-year-old dairy farmer from Mohnton, Pennsylvania, was chosen as the national vice president of the North Atlantic Region. He has full responsibility for the operation of the 180-acre family farm which he is purchasing from his father. Glenn has compiled an outstanding record in the FFA and served as president of the Pennsylvania FFA Association in 1966-67.

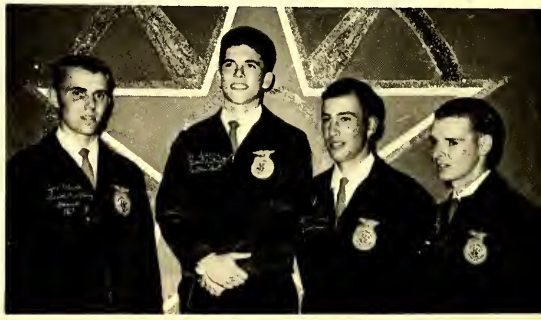
Joe Martinez, 20, the new national vice president for the FFA's Pacific Region, farms 15 acres of leased land and adds to his income by working for neighbors. He grows 12 acres of apricots and 3 acres of almonds. Joe, a member of the Winters, California, FFA Chapter, held office as the 1965-66 president in the California FFA Association. In high school he also served as sophomore class reporter, school reporter, and student body vice president.

Lowell Catlett of Dalhart, Texas, was named national vice president of the Southern Region. Lowell's farming operations include a herd of beef cows and calves, hogs, milo, wheat, and broom corn on a 1,443-acre farm. The 19-year-old dryland farmer previously served as chapter president, district and area FFA president, and the 1967-68 Texas FFA Association vice president. Lowell's high school activities included dramatics and debate.

The regional vice presidents are, back row, left to right, Glenn Weber, Lowell Catlett, Thomas Johnson, and Joe Martinez. In the front row, left to right, are Jerry Batts, national secretary; and Jeff Hanlon, national president.

Honorary American Farmer Degrees were presented to vocational agricultural educators and agricultural leaders for outstanding service to the Future Farmers of America.

Regional Star Farmers are Jack Gibbons, left, North Atlantic; Joe Spencer, Southern Region and Star Farmer of America; DeLane Ruess, Central; and Michel Oakley, Pacific.



FOCUS . . . FORTIETH ANNIVERSARY

Forty years ago on November 2, 1928, the FFA was organized, adopted a constitution, and elected its first national officers. There were just 33 delegates and few adults at this first convention in Kansas City, Missouri.

But this is 1968, and the FFA has grown to over 443,000 members. Before the curtain fell on the 40th FFA Anniversary Convention, over 13,000 Future Farmers and guests had attended the national FFA event.

The 1968 FFA Convention gained national prominence and prestige when former Vice President Richard M. Nixon paid tribute to the FFA during the Wednesday morning session. His speech centered on America's number one strength, agriculture. He told the Future Farmers of America that they possessed the power to lead American agriculture to still greater heights. To this, Mr. Nixon received a standing ovation from the convention audience.

The Agricultural Hall of Fame and National Center honored the FFA by selecting the 1968 convention to unveil the Hall of Fame's first honorees. The five distinguished men, announced by Senator Frank Carlson, were Justin Smith Morrill, "Father of Land-Grant Colleges"; Cyrus Hall McCormick, inventor of the reaper; Thomas Jefferson, pioneer in scientific farming; George Washington Carver, researcher of new uses for farm crops; and George Washington, developer of new practices for improved farm production and marketing.

Mr. Donald N. McDowell, director of agriculture for Wisconsin, lauded the FFA when he explained that America needed more "demonstrations and happenings" like the FFA National Convention. The enthusiastic FFA'ers showed their approval with cheers and clapping.

Another guest speaker, David Thomas, member of the Missouri Association, told of his tragic baseball injury and how the FFA provided him with the opportunity to overcome his disability. Remarks about the Leadership and Citizenship Conference were presented by Everett Rains of the Florida Association.

Other speakers to greet the FFA members, advisors, and guests included Mr. W. A. Ross, former national executive secretary; Mr. Adin Hester, former national FFA president and national public speaking winner; Dr. Leon P. Minear, director, Division of Vocational and Technical Education in the U.S. Office of Education; and Miss Marilyn Van Derbur, former Miss America.

This year 484 FFA members received the "one in a thousand" coveted American Farmer Degree. It is from these degree winners that the Regional Star Farmers and the Star Farmer of America are chosen.

On Thursday evening Boyd Joe Spencer, 21, of Albert, Oklahoma, a member of the Oney FFA Chapter, was named 1968 Star Farmer of America and awarded an additional $500 from the FFA Foundation. Previously he was named Regional Star Farmer of the Southern Region. Joe's farming program centers around a registered Polled Hereford herd. The three other Regional Star Farmers recognized were DeLane Ruess, 21, Owosso, Michigan; Jack W. Gibbons, 20, Clymer, New York; and Michel L. Oakley, 20, Scio, Oregon, a member of the Albany Union FFA Chapter. Each Regional Star Farmer received $500 from the FFA Foundation for their farming achievements. A movie taken at the farms of the Star Farmers highlighted the evening ceremony.

Honorary degrees were conferred upon 39 friends of the FFA. In addition, 26 vocational agriculture teachers were awarded the Honorary American Farmer Degree. Distinguished Service awards were presented to 31 persons for outstanding contributions to the organization.

Another group recognized by the FFA in a special ceremony was the sponsors to the Future Farmers of America Foundation, Inc. The Foundation is supported by some 450 business and industrial concerns, organizations, and individuals.

Donald Pilkinton, 18, of Knoxville, Tennessee, won the national public speaking contest and cash award of $300 with a talk on "Education and Agriculture." Other national speaking contestants were Dick Crone, 17, Harvard, Illinois; Charles Hannum, 17, Ravenswood, West Virginia; and Rodney McCall, 18, Endicott, Washington.

The judging contests took place on Wednesday and Thursday of the convention week. Top team placings were Dairy Cattle—Epworth, Iowa; Dairy Products—Licking, Missouri; Poultry

(Continued on Next Page)

Left to right, seated: John A. Banning, Ford Motor Company; Lyle Rader, 1959 Star Farmer of America; Roger Fleming, American Farm Bureau Federation; Doyle Conner, Florida commissioner of agriculture; W. T. Spanton, former national FFA advisor; Senator Frank Carlson, Kansas; John A. Morgan, Butler Manufacturing Company; and James B. Prendergast, Allied Chemical Corporation. Left to right, standing: H. N. Hunsicker, national FFA advisor; R. W. Batts, International Harvester; George R. Ferguson, Geigy Chemical Corporation; E. W. Ukkelberg, Deere & Company; Roderick Turnbull, *Kansas City Star;* L. W. Davis, Allis-Chalmers Manufacturing Company; W. W. Keeler, Phillips Petroleum Company; Edward R. Kane, E. I. duPont deNemours & Co., Inc.; L. H. Skromme, New Holland; Tom L. Devin, National Vocational Agricultural Teachers' Association; and Wallace E. Wilson, General Motors.

FOCUS . . . FORTIETH ANNIVERSARY

and Eggs—Manhattan, Kansas; Livestock—Alta Vista, Kansas; and Meats—Perkins, Oklahoma.

Fifty-eight chapters received the Gold Emblem rating in the National Chapter Awards Program. They were Arkansas—Mansfield; California—Modesto; Colorado—Eaton, Platte Valley (chapter) at Kersey; Connecticut—Housatonic Valley at Falls Village, Woodbury; Florida—Bartow, Sante Fe "Senior" at Alachua, South Sumter at Bushnell; Georgia—Early County at Blakely, Patterson, Perry; Illinois—Sycamore, Warren at Monmouth; Indiana—Crothersville; Iowa—Audubon; Kansas—Garden City; Kentucky—Memorial at Waynesburg, Metcalfe County at Edmonton; Louisiana—Saline, Slidell; Maine—Mars Hill; Maryland—Gaithersburg; Massachusetts—Wachusett at Holden; Michigan—Ovid-Elsie at Elsie; Minnesota—Faribault, Jackson, Stillwater; Mississippi—Morton; Montana—Flathead at Kalispell; Nebraska—Ainsworth; Nevada—Ruby Mountain at Elko; New Jersey—Belvidere; New Mexico—Clovis; New York—Barker; North Carolina—Central at Fayetteville, Fuquay-Varina; North Dakota—A. S. Gibbens at Maddock; Ohio—Buckeye Valley at Delaware, Elgin at Marion; Oklahoma—Clinton, Collinsville, Stillwater; Pennsylvania—Lower Dauphin at Hummelstown, Mifflinburg; South Carolina—Woodruff; Tennessee—Bradley Central at Cleveland, Calhoun; Texas—Azle, Tatum; Utah—Springville; Virginia—Montevideo at Penn Laird, Robert E. Lee at Appomattox, Turner Ashby at Dayton; West Virginia—Terra Alta; Wisconsin—Delavan-Darien at Delavan, Monroe; and Wyoming—Frontier.

Gold Emblem winners in the promotion of safety include 22 local chapters. By state they are Colorado—Eaton; Florida—Sante Fe "Senior" at Alachua, South Sumter at Bushnell; Illinois—Bluffs, Tonica; Indiana—Brownstown Central; Iowa—Audubon, Belle Plaine; Louisiana—Saline; Michigan—Ovid-Elsie at Elsie; Minnesota—Faribault; Missouri—Francis Howell at St. Charles, Perryville; New Jersey—North Hunterdon at Annandale; New York—Afton Aggies; North Dakota—Minot; Ohio—Big Walnut at Sunbury; Pennsylvania—Middleburg; Utah—Gunnison Valley; Virginia—C. T. Smith at Ladysmith; Wisconsin—Cochrane-Fountain City at Fountain City; and Wyoming—Buffalo Bill at Cody.

The national winners of agricultural proficiency awards were Agribusiness—Roger Lee Phelps, Marysville, Ohio; Agricultural Mechanics—J. Darrell Breeden, Jefferson City, Tennessee; Crop Farming—John E. Scharf, Perrydale, Oregon; Dairy Farming—Judson Mitchell, Detroit Lakes, Minnesota; Farm and Home Electrification—Jimmy Zittrouer, Springfield, Georgia; Forestry—Bab Brand, Wetumpka, Alabama; Home Improvement—Glen E. Morris, Indianola, Iowa; Livestock Farming—Hix Y. Pugh, Sugar Grove, Virginia; Natural Resources Development—Tim Hamilton, Satsop, Washington; Ornamental Horticulture—Robert Hilditch, Glastonbury, Connecticut; Placement in Agricultural Production—Lennie Ray Barker, Chowchilla, California; Poultry Farming—Merle Gaulrapp, Rock Falls, Illinois; and Soil and Water Management—William B. Thomason, Stillwater, Oklahoma. A cash award of $250 accompanied each honor.

Champion ribbons at the American Royal FFA Live Stock Show went to Kraig Schilder, of Grinnell FFA, Iowa, in the beef division; H. J. Voss, Goltry FFA, Oklahoma, in the hog classes; and Dennis Howard of the Mulhall Chapter, Oklahoma, in the sheep show.

The National FFA Band and Chorus provided inspirational and patriotic music throughout the convention. Over 100 FFA members from 32 states participated in the chorus and about 120 members from 38 states played in the band. Other entertainment included the FFA Talent Show and the convention organist from Illinois, Dennis Martin. A colorful pageant which depicted 40 years of historical leadership by the FFA stirred the emotions of many.

Official delegates had a busy schedule too. Prior to the convention they worked on the many business committees. During the business session they passed the reapportionment of delegates by states and approved continued study and development of the National FFA Center. They also voted to raise national dues.

On the floor below the convention hall, 41 national trade associations and professional societies exhibited educational booths. The exhibits portrayed the various agricultural occupations and indicated the education and experience required by each particular field.

Another exciting event was FFA Day at the American Royal. FFA members in attendance thoroughly enjoyed the trumpeter, the horse show, and the dazzling riding drill performed by the Royal Canadian Mounted Police. In the closing session special entertainment provided by Firestone received an astounding ovation as the FFA'ers stood and applauded.

Each national officer—Greg Bamford, Paul Diehl, Robert Rish, John Gemmill, Richard Jones, and William Boehm—took his turn presiding over the convention and delivered a stimulating message before retiring from his respective office.

FFA members from all parts of the nation helped make the FFA convention a success. Their work in performing the duties of the courtesy corps, livestock and dairy showmanship, ushers, stage crew, and other details is a good example of how young people execute responsibility in a proficient manner.

Donors to the FFA Foundation, Inc. were recognized for their support of the FFA awards program. The past chairmen of the Sponsoring Committee also received recognition.

From left, FFA Foundation leaders are Mr. J. B. Prendergast; Mr. Donald Danforth, Jr., 1969 Sponsoring Committee chairman; Mr. Sam White, Jr., and Mr. L. W. Davis.

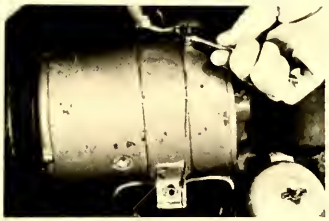
Servicing Starters and Generators

By Melvin Long

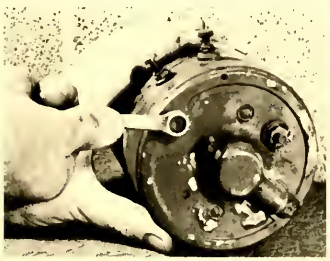
Both the starter and generator have field coils, a rotating armature, commutator, and brushes. The starter is specifically designed to operate at a high overload for a very short time interval. Otherwise it would have to be very large to have capacity enough to start the engine. The generator, on the other hand, operates at much lower capacity but is operating whenever the tractor engine is running.

Although a generator is used to illustrate the servicing of these components, the same procedures will work on starters too. Most of the maintenance procedures necessary on these two devices are related to commutator and brushes. If anything more complex requires repair, it's usually a good idea to call on your dealer service facilities. Special skills, test facilities, and repair equipment are needed for the more complex repairs.

Wipe dirt from exterior of case. This prevents dirt from getting into the working parts while the generator is being inspected or repaired. In most cases, it's necessary to remove the generator for a good job of servicing.

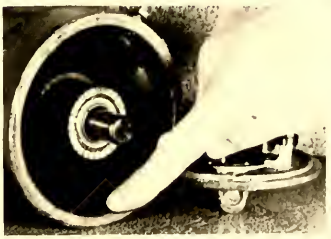


After marking the wires carefully so that they may be reinstalled in the correct position, remove the wires from the generator. Insulate the ends of the disconnected wires with small pieces of electrical tape to eliminate the possibility of shorting live wires to the tractor frame.



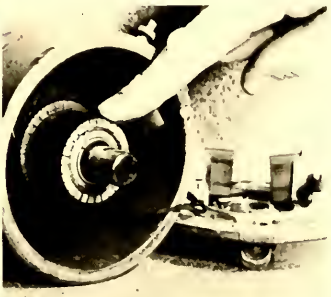
Tractor generators are of two general types. One type has a cover band held in position with a clamp screw. Removal of the cover band provides access to the brushes and commutator. On the second type the end frame of the generator must be removed to gain access.

Remove through-bolts to gain access to the generator. Then remove the end frame opposite the pulley end of the generator. It may be necessary to use a screwdriver to pry the end frame away from the main body of the generator. If so, do this carefully so that none of the generator parts are damaged.



Check for evidence of thrown solder. On the end-frame type generator, this solder will be on the inside of the generator housing in the general area of the commutator. On the cover-band type, the solder will be on the inside of the band. Any particles of solder found here have been thrown against it from the commutator and indicate that the generator or starter has been overheated.

In such a case, it's wise to take the starter or generator to a service shop for further repair and not attempt to repair it yourself.



Check commutator for signs of wear. A darkened area under the brushes is normal, but if grooves are worn in the commutator bars, shop repair is also required. Even though the generator may have been operating normally so far, additional wear beyond this point will cause it to fail. If the grooves are not excessively deep in the commutator, it may be possible to have the commutator turned down in a lathe and restored to satisfactory condition.

Check the brushes for indications of wear. In most generator designs, the spring arrangement that holds the brush against the commutator will eventually reach a stop as the brush wears. This length is generally the limiting factor on brush life. Thus, if the brushes can be spring loaded to the innermost position when they are not in contact with the commutator, the difference in clearance between brushes and the diameter of the commutator is a good indication of remaining service life in the brushes.

Remove and replace worn out brushes. Disconnect the wire lead which is imbedded in the outer end of the carbon brush. Then release the tension clip or spring which holds the brush in place and remove the brush. Install new brushes and connect the wire leads to the terminal. Make sure the new brushes work freely in the holder. Clean all parts, reassemble, and reinstall the generator.

Polarize the generator before starting the engine. Failure to do this may cause damage to the regulator or to the battery. After reconnecting the generator wires touch a short jumper wire to the two posts on the regulator marked "battery" and "generator." In some cases the second terminal may be marked "armature." It's only necessary to touch the wires for an **instant.** Do not hold them in contact.

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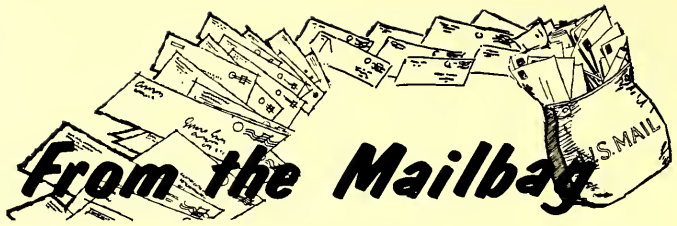

Catlettsburg, Kentucky

I really enjoy reading *The National FUTURE FARMER* Magazine. In the August-September issue, you had an excellent article, "A Frame for Life" condensed from material provided by the National Safety Council. I wish that the Magazine would write some more about this topic.

David Bloebaum

St. Henry, Ohio

I have just read "Choosing A Career" by Dennis Chilberg in the October-November issue. May I state that I think it is an excellent article. This opinion is shared by our principal who gave the article to me.

May we have permission to duplicate the article for distribution to our students?

William C. Tremper
School Counselor

Permission granted.—Ed.

Macy, Indiana

I would like to suggest that perhaps *The National FUTURE FARMER* could have some helpful tips edited in it. This is especially so on beef, due to the fact that we are pulling back and forth between the modern and fat steer of yesterday. Keep producing a great magazine.

Dave Emery

See the article "'Beef' Up Your Herd" in this issue.—Ed.

Marietta, Oklahoma

I am writing in regard to a picture that appeared in your magazine, Winter, 1955, Volume 3, No. 2. It's a picture of a boy holding pigs. We got only one, and I would like another picture if possible.

This picture is of Royce Lain. He was a member of FFA when this picture was published, but not when it was taken.

If a picture is sent, would it be possible to not fold it as I am going to "decoupage" it.

Mrs. Charles H. Lain

Waupaca, Wisconsin

Vocational agriculture returned to Waupaca this year after an absence of several years. Why? Perhaps the lack of a program made the area people realize what was missing. At any rate, after a few years a group of farmers and others appeared at a board meeting asking for a vocational agriculture program. Most often mentioned was the lack of the FFA.

Only time will tell what can be developed. But from an enrollment of 16 in a non-vocational agriculture course, we went to 33 soon after school opened. Administration, guidance, and people in the community all seem to be pulling for the success of the program. Student interest is good. It looks like a real opportunity to develop a meaningful program. Perhaps no vo-ag for a few years showed more clearly the real need for it. We hope this is an example that proves vocational agriculture is needed and wanted, perhaps more now than ever before.

Charles J. Larson
FFA Advisor

Eaton, Colorado

I certainly enjoyed the February-March issue of *The National FUTURE FARMER* Magazine very much. The main article that impressed me was the one on agricultural communications. This ag-related field fascinates me very much. Being chapter reporter last year gave me many opportunities to expand, especially in the field of writing. This special sphere of agriculture was first presented to me at the National FFA Convention this past year by Len Richardson. He encouraged me to study in the field of agricultural journalism.

If you have any available information on this field of agriculture, I would certainly appreciate the opportunity of reading it. Thanks again for the challenging article you wrote!

Alan Hendrickson

Tampa, Florida

I am a new member of the FFA. I was reading in the FFA Manual, and I saw an address to write for information. If you could, please send me some information on calves because I am getting a calf for my FFA supervised farming program.

Jonathan Evans

For informatioo you might want to write to the American Angus Association, 201 Frederick Boulevard, St. Joseph, Missouri 64501; or to the American Hereford Association, Hereford Drive, Kansas City, Missouri 64105.—Ed.

Mrs. W. T. Spanton

Friends of Dr. and Mrs. W. T. Spanton will regret to learn of the death of Mrs. Spanton on October 21 in Sikeston, Missouri. The Spantons attended the National FFA Convention in Kansas City and were returning to their home in Clearwater, Florida, when Mrs. Spanton became ill. She was placed in a Sikeston hospital where she died the following Monday. Dr. Spanton was one of the founders of the FFA in 1928 and served as national advisor from 1941 until his retirement November 1, 1961.

AGRIOPPORTUNITIES

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AgriOPPORTUNITIES

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AgriOPPORTUNITIES is published for the young man who is considering a career in off-farm agriculture. It has been nearly a year in planning and development, and many people have had a part in its preparation. The response from business executives, college officials, and others who were asked to provide information was most encouraging. No doubt many others would have welcomed the opportunity to tell their inspiring story had it not been necessary to limit the size of this edition. In an effort to provide you with specific information, and not just generalities, some schools, universities, and companies are mentioned by name. Where such references are made you will want to consider them as examples and not limit your planning to those mentioned in this edition alone. The staff of *The NATIONAL FUTURE FARMER* hopes, too, that the information provided here will prove helpful to you in making your career choice and in pursuing further education in preparation for it.

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ASSOCIATION OUTLOOKS ON AgriOPPORTUNITIES

INDUSTRY VIEWPOINTS OF AgriOPPORTUNITIES

Reprints of AgriOPPORTUNITIES are available from The National FUTURE FARMER, Alexandria, Virginia 22306 at the following prices: Single copy, 50 cents each; 2-10 copies, 45 cents a copy; 11-100 copies, 35 cents a copy; over 100 copies, 25 cents each.

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ALREADY WE ARE FACED with a shortage of trained replacements for existing technologies and the need for people for the new technologies. The demand for young people with an agricultural education and background will become even more acute in the future. This vast agricultural industry offers "unlimited opportunities" for men with knowledge, skills, ambition, and the desire to fill the positions created by (1) the changing conditions and (2) the retirement of our people in agriculture.

The agricultural industry has suffered from fallacies in the past. The resulting publicity about overproduction, subsidies, and the ills of agriculture, has overshadowed the true story of the high standard of living created in America by farmers and the agricultural businesses. The image of agriculture as the "straw hat and pitch fork" occupation still existed long after mechanization. "Agribusiness" was one of the magic terms created to overcome the out-dated false image.

What does "agribusiness" mean? A study of the programs in agriculture in the post high school institutions in our country shows that "agribusiness" has many meanings. You will find a curriculum in "grain, feed, seed, and elevator management" might be called "agribusiness." Or another program under this same title might be preparing young men to enter the farm supply business, working for a farm cooperative. A program slanted toward mechanization and agricultural equipment, or sales and services, may be called "agribusiness."

In another institution, the courses may be largely in the areas of agricultural economics, money, financing, and management.

Finally, to educators, "agribusiness" is a term which has been used to devise and house programs of instruction to meet the needs in the local areas. We find some of these are very similar to programs called "agricultural technology," in which the courses are preparing young people for the business of farm production.

"Agribusiness" has served a purpose—that of focusing the attention of other educators, students, and businessmen on the importance of agriculture. However, the term has also caused a great deal of confusion among high school students and those people who are trying to assist young people in preparing for specific careers. Today most people in industry think that the term "agribusiness" refers to off-farm, agriculturally oriented enterprises.

Agricultural curriculums are being developed in many of our post high school institutions. The purpose and objective of these curriculums are to prepare graduates for a specific area of specialization in the agricultural industry. Agricultural degrees may be obtained in chemicals, dairy, farm crop production, forestry, wood utilization, food processing, biological laboratory science, landscaping, marine life, ocean fishing, soil reclamation, and recreation land management. Other technical degrees include turfgrass science, wildlife and conservation, communication, aviation, pesticides, pest control and extermination, floriculture, small animal laboratory science, arboriculture, orchard and vineyard production, and poultry science. Specialization options are available at some technical schools.

The curriculums usually include four areas of instruction:

1. Courses in technical agriculture (animal husbandry, horticulture, agriculture mechanics, agriculture production, forestry, agriculture resources, and others).

2. Business courses as applied to agriculture (management, advertising, economics, marketing, journalism, accounting, and others).

3. General education courses.

4. Supervised occupational experience.

The technical courses are part of the program since a student must have the background and understanding of the agricultural industry. These courses will vary in different locations, according to the objectives of the school. Areas of study in technical agriculture could cover the livestock business, fertilizers, soils, chemicals, or the equipment business.

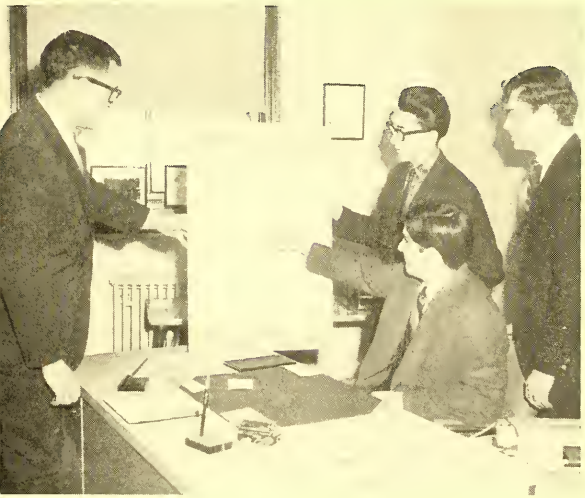
Business courses are important in the curriculum. The student being prepared for the field of management must know how to make management decisions and, therefore, courses should be included to cover the business of farming and farm management.

Some students will be in sales positions, or will be working with a sales department. Techniques in promotion sales and advertising will be part of their program.

The graduate from a two-year college will need a good base in agricultural economics and principles as used in the agricultural business. A study of the agricultural marketing institutions, also their distribution and marketing systems, should be part of the student's agricultural program. When the technical graduate enters the working world, he will find that it is necessary to write and speak effectively. The use of communications plays an important part in agricultural business. Thus a student needs to learn letter writing techniques and speaking fundamentals.

The sciences are an integral part of agricultural education. Basic applied science courses should be part of the preparation of young people for changing conditions. It is evident that an understanding of our government, social organizations, civic responsibilities, and human relationships will be an important part of the program. These courses, or ones similar in nature, may be termed general education

An intern period for a student in agricultural business gives him a good start toward his specific occupation.



Business training especially related to agriculture can be a useful tool when the graduate gets his first job.

Many technical agricultural graduates get the chance to take on responsibility and to prove themselves right away.

courses, and should comprise about one-third of the total program.

Since two-year colleges are preparing the student for entry into a specific occupation, experience in that occupation will be required, either through supervised occupational experiences in businesses, or other experiences recommended by the faculty.

A student should plan to enter a specific curriculum well in advance of application. Taking vocational agriculture courses while in high school is most advantageous for a student planning a career in agribusiness. Also, activities in the FFA are extremely valuable in developing leadership characteristics.

The high school student preparing for a career opportunity in an agricultural business should have a good high school mathematics course, success in at least one laboratory science (preferably two courses), and should learn to read and write effectively. English is sometimes difficult to sell to the high school student. This is most unfortunate because students will discover, sometimes too late, that the ability to read, understand, and write is the key to enjoying a chosen curriculum in a two-year college.

Work experience of some type in an agricultural business is very desirable. By consulting with the vocational agriculture teacher or the guidance counselor, a student may be able to obtain this experience while in high school. Satisfactory graduation from high school is a requirement for most post high school institutions.

It is never too late for a young person to prove that he can do the work. A student in this situation may find it necessary to return to high school for some courses, or to enroll in pre-technical courses in the two-year college, prior to being accepted in the institution. A student must prove that he has the background and preparation before entering a technical school.

Students who have successfully completed an agricultural curriculum in one of our post high school institutions will have no problem securing a position. They will find a variety of openings according to their interests. Examples of opportunities include:

- Sales with agricultural supply companies.
- The business of banking and extending credit to farmers. (Positions are available with private banks as well as with the agricultural cooperative credit associations.)
- Work as a representative for an insurance business. (Farms and agricultural business today are required to purchase a variety of insurance coverages.)
- Positions with state, local, and federal governments for their various agencies in the inspection, supervision, and advising areas.
- Positions with food retailing companies—as buyers, in merchandising or in advertising.
- Work in a specialized area of farm service such as seeds, fertilizers, weed controls, or sprays.
- Jobs dealing with the management aspects of farm production.
- Supervision and management of finances, sales, and inventories.

Opportunities in agribusiness will vary according to the region of the country. Positions will be different in the highly specialized fruit and citrus growing areas as compared with scientific aspects of those positions in forestry.

You will also find positions needing to be filled in the area of management of our parks, recreational lands, wildlife, in conservation, and innumerable areas of agriculture.

Young people will find in the area of agribusiness, as in other areas, conditions change with the times. Agriculture cannot be different from other industries. We find more agricultural industries having the same hours as other occupations—and a study would show that compensation for positions in agricultural businesses are in excess of many

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At Shell there are many profitable and varied career opportunities for men with agricultural background and training. These opportunities exist in field sales work and in administration and technology at locations throughout the country.

The next time you think about agriculture, think about Shell. We share with you a total commitment to more modern farming. Your future in this growing industry is an important part of our present concern.

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other businesses. This is probably because of the varied background and experience necessary for success.

Some graduates with two-year college programs will work a set number of hours per week; others will find that because of positions in which they are very interested and because of the work itself, they will be putting in many more hours than the standard forty per week.

One important reason why a position in an agricultural business is very rewarding is because a person has the opportunity to work with people. There is no limit to the advancement of graduates in agricultural programs. Students who have successfully completed these programs are now in top positions of leadership in a number of our farm cooperatives and private businesses in the country. We find agriculture graduates in the two-year colleges moving to the top positions in government. We find these people on the school boards, the church councils, and participating in other community activities.

Agribusiness curriculums prepare a person for a very rewarding future. The background in technical education, experiences, business education, and general education courses prepare the student for growth in a changing world.

The future for young people in this segment of agriculture is much broader than we can envision. It is evident that capital is replacing labor on our farms. This change alone indicates a continuance of the specializations in agriculture. This results in the farmer purchasing additional supplies and services. Instead of having approximately three people in agriculture for every one person in production, the ratio will continue to grow, meaning there will be a greater demand for trained personnel in the agricultural businesses.

Our increasing population is also creating a new relationship between what we commonly call "agriculture" and our other natural resources. We now realize that we cannot separate our farmlands from the forests, parks, and other outdoor resources. This is going to mean a demand for many more young people in agricultural businesses related to the utilization of land for recreation and uses other than the production of food.

We also know that there is a crying need for agricultural technicians in the agricultural businesses in foreign lands. If we are able to attain a better political climate and more political stability in the future, foreign countries will be calling for our agricultural graduates. Our graduates assist in developing their natural resources and teach their people how to manage and supervise their own agricultural businesses.

The technical education movement has snowballed in the last few years. In 1967-68 there were 181 institutions offering 462 curriculums in technical agriculture, and awarding the Associate in Applied Science degree. This represented a 30 percent increase in both the number of institutions and programs available over the school year of 1966-67. There will be a comparable growth in 1968-69.

The technical graduate of the future will find opportunities within agriculture which do not exist today. Some of the young people graduating from these programs may even change their vocation in later life.

Agricultural training programs are available in the two-year colleges, the post high school vocational technical schools, the technical institutes, and in some of our two-year departments in the four-year colleges and universities. For more information about two-year training programs, consult your local agriculture teacher, guidance counselor, or school principal.

(By Howard Sidney, Chairman of the Agricultural Division, Agricultural and Technical College, Cobleskill, New York, who has just completed a year of work in the field of agricultural education for the U.S. Office of Education. He assisted in the development and promotion of agricultural curriculums for vocational and technical schools, and two-year college programs.)

The field of education offers opportunities for young people to find a satisfying career teaching agriculture.

The many scientific aspects of modern agriculture offer exciting positions for college and university graduates.

AgriOPPORTUNITIES FOR PROFESSIONAL GRADUATES

AGRICULTURAL BUSINESS • EDUCATION • RESEARCH AND DEVELOPMENT • INSPECTION
FORESTRY AND CONSERVATION • COMMUNICATIONS • AGRICULTURAL INDUSTRY • AGRICULTURAL SERVICES

THE STORY IS the same from east, west, north, and south. We don't have enough graduates in agriculture to meet the demand. In fact one university spokesman told us, "The demand for agricultural college graduates so far exceeds our supply that for several years no effort has been made through this office to encourage additional agricultural companies to recruit graduates. It is poor business to advertise "for sale" and then have your shelves empty."

This shortage of agricultural college graduates was described by several universities from throughout the country in response to questions submitted by *The National FUTURE FARMER*. In brief, they told us there are AgriOPPORTUNITIES aplenty for the young man who wants to pursue a college degree in agriculture and the demand will continue strong for many years.

In describing the outlook for agricultural college graduates, Dean Roy M. Kottman, Ohio State University, said, "The problems of world nutrition shortages present us with an enormous challenge. We now have more than 3.2 billion people living on our planet. By the year 2000 there will be more than 6 billion people. Here in our country we have one more mouth to feed every 13 seconds. This means that there are 6,800 more people alive in our country each day than there were the previous day. Stated in another way, every three years a country the size of our own United States is coming into being on the face of our globe. In India, there are 50,000 more mouths to feed each morning than there were the day before. Providing food for the world's population of the future is going to be a mighty big job."

Agriculture also offers a variety of opportunities. Associate Dean Karl E. Gardner of the University of Illinois explained it this way: "Agriculture, as the most diverse of all human endeavors, provides the greatest variety of occupational or professional employment of any of man's activities. For the young man who wishes to teach agriculture in high school, junior college, or a university, there are positions awaiting him. For the man or woman who wants to do research in such diverse areas as the biological sciences, the physical sciences, or the social sciences, agriculture is a wide open field, with vacancies in universities here and abroad, in large and small corporations, in the foundations, and in state and federal government service. For the man who wishes to write about agriculture, to explain research findings and agricultural techniques, with work in the farm press, the general news media, in universities and extension services, or with governmental agencies, there is an increasing number of excellent opportunities.

"There are places for the young man or woman who wishes to apply his skill in positions with corporations and business producing, processing, or marketing agricultural supplies such as machinery and equipment, fertilizers, insecticides, seeds, and feeds. If his interest is in processing or marketing meats, dairy products, poultry products, horticultural products, including fruits, vegetables, and nuts, there are challenging tasks for him. If the student wishes to prepare himself for farm operations or the management of farmland for banks, insurance companies, and private owners; or handle the credit which makes it possible for farmers, orchardists, ranchers, and gardeners to produce efficiently, the market is insatiable.

At the present time there are aproximately two to three jobs available for each student graduating in agriculture in this nation. One university reported that the more highly qualified graduates have a choice from among ten or more positions.

As you would expect, job opportunities are more limited in some fields than others. In describing the situation at his institution, Associate Dean R. C. Potts of Texas A & M reported that they award the greatest number of B.S. degrees in the field of animal science. "The job opportunities available *per graduate* are perhaps the lowest among those receiving the degree," he said. "However, all of our animal science graduates find employment in the broad field of agriculture. On the other hand, only a few B.S. degrees are granted in poultry science. Each graduate in this area has from five to fifteen job opportunities. Yet from an overall demand for B.S. degree graduates, more men are employed in the broad field of animal science than in poultry science."

You can work at only one job. Which field do you choose? Perhaps these further comments will help you find an answer to that all-important question.

Dean Floyd Andre, Iowa State University, said: "We feel that there has never been a time when a larger number of jobs have been available to college graduates with a degree in agriculture. The major source of this increase is in the agribusiness field with firms manufacturing and selling a product to the farmer or providing some service such as credit. Someone must research, develop, manufacture, advertise, service, and sell these products to the farmer, and we find agriculture graduates in all of these areas of agribusiness. Firms dealing with farmers or agricultural products naturally look for people with a farm background to fill their openings and often prefer a person with a degree in agriculture.

"There is a shortage of qualified agriculture graduates in all areas, but we find some of the areas with the smallest number of graduates show the greatest difference between number of graduates and number of jobs available. Fields

such as agricultural journalism, food technology, and poultry science are examples. Teachers of vocational agriculture are also in short supply, and for the past several years we have not had enough graduates in agricultural education from Iowa State University to meet the needs for new teachers in Iowa."

At the University of Nebraska, Franklin E. Eldridge, director of resident instruction, explained the opportunities this way: "The greatest opportunities in agriculture depend upon the point of view of the observer. Great opportunities in terms of income probably lie in the sales and marketing areas of agricultural business. Opportunities for service are very great in agriculture since there is a tremendous unfilled demand for agriculturalists in the Peace Corps, in International Voluntary Services, and in other international types of programs. There are many service opportunities within our own country also in terms of vocational education teaching, county agent work, or the sales representative for agricultural businesses, such as fertilizer companies, which provide real and valuable services to farmers. To the scientifically oriented student, the opportunities are greatest in the fields of research which are always needing additional men."

Cornell University's H. S. Tyler, professor in personnel administration, said, "We have found that the demand for well qualified graduates is strong in practically all fields. To try to single out certain fields as having stronger demand than others is not only difficult, but in an article designed primarily for high school students is probably inappropriate because any who enter college may well find that the situation has changed considerably by the time they graduate."

At Michigan State University, Richard L. Feltner, director of resident instruction, said, "Two things are readily apparent with regard to the opportunities for graduates from colleges of agriculture. First, the demand for these graduates is increasing quite rapidly. This is reflected both in the number of employers who come to our campus to recruit agricultural graduates and in the increase in the average number of positions which each employer has to fill. Secondly, enrollments, and hence the number of graduates from colleges of agriculture are not increasing nearly as rapidly as are the number of openings for these graduates. Enrollments in many colleges of agriculture throughout the country are remaining about the same or even declining. Only a few colleges have shown significant increases in enrollments in recent years. This, of course, places the student who does receive a degree from an agricultural college in a very favorable position. He has many jobs from which to choose.

"As with nearly all employers, those seeking our graduates seem to want a person who has demonstrated that he has the capacity and tenacity to complete a college program," points out Director Feltner. "In other words, grades are important. However, these employers are also interested in someone who has had exposure to a wide variety of areas in his academic program. They want someone who meets people well, who is able to communicate with his fellow workers and with the public, and who is willing to continue to grow and develop in his professional area."

Associate Dean Gardner stated, "The young man with vision realizes that he must have, in addition to technical and professional skill, an understanding of the culture of this and other nations and a comprehension of the national and international problems which mark an educated man. It is just not quite enough to be technically proficient; the agricultural expert must be broadly trained and imbued with a sense of service and responsibility toward society."

Director Eldridge described the graduate which industry is looking for like this, "Industry apparently is looking for a young man with his military service completed, with some work experience, a farm background desirable, ambitious, energetic, married, with a high level of integrity. The specific factor which the agricultural graduate brings to a job in industry is the technical knowledge about fertilizers, feeds, farm equipment, or farm credit. This is a valuable commodity to industry. In addition the young man with the other capabilities will be promoted and advanced more rapidly and will, of course, be of greatest service to his company."

The degree of specialization at the college level will depend on many factors. Professor C. E. Trotter at Pennsylvania State University says, "My impression, after talking to many recruiters, is that specialization takes place primarily through on-the-job training or graduate work." Others pointed out that if you are going to be a biochemist, for example, you must have a considerable amount of experience in formal biochemistry courses. On the other hand, the student who wants to go into sales or management with a business concern generally need not have extreme depth in any particular subject matter area. Of course, specialization becomes more pronounced at the graduate level for those seeking master's or Ph.D. degrees.

Dr. D. V. Josephson, also at Penn State, points out that industry is interested in graduates with good basic training in the sciences plus training in the field of applied phases of their specialties. "A growing number of industries favor the idea of the M.S. degree, particularly for those who will enter research and development, quality control, technical sales, supervision, and county agent work," he said.

What salary can you expect when you graduate from college? This answer will depend on a number of factors: your own abilities, the general salary level in the area where you are employed, your field of work, and many others. And keep in mind that any salary figure you see now will probably be changed by the time you finish college. But for the record, the salary range at the present time for a graduate with a B.S. degree quoted by the various universities varied from $5,000 to $9,000, with $6,000 to $8,000 being the more common figure. Some listed an average starting salary of about $7,500. The top of the salary range will always go to those students with exceptional abilities. For those students with graduate degrees, of course the salary range is considerably higher.

In regard to salaries, "Professor H. S. Tyler at Cornell offered this word of caution, "Salaries are a result both of the general price level and of the supply-demand situation in specific fields. In deciding on a vocational direction, a student should be guided by his own aptitudes, interests, values, and personality—not by forecasts of starting salaries or demand for graduates."

Associate Dean Karl Gardner at the University of Illinois says, "Preparation for the best of the positions in agriculture also requires 'an early start' with a good solid grounding in pre-college schooling, including special emphasis on grammar, writing ability, and mathematics since these are the principle tools which the business world and science alike require for success. Every student expecting to make a success in his life work in agriculture must demand of himself an earnest effort, and he must not be satisfied with undemanding programs of study. In addition, he should further challenge himself with summer employment in positions providing experience in the field of his interest. He must acquire the habit of reading intensely in his specialized field and widely in a general education sense."

Most colleges of agriculture offer a wide variety of programs which can be tailored to suit the needs, interests, and vocational objectives of nearly any student. The opportunities are there, and they would like to see more students taking advantage of them.

AgriOPPORTUNITIES unlimited seems to be the theme around the agriculture colleges and universities today. No doubt you will find the same situation exists at your own state agriculture college as well.

The next move is up to you. Pick your field of study and the college of your choice and move ahead. There is a job waiting for you in agribusiness.

ASSOCIATION OUTLOOKS ON AgriOPPORTUNITIES

IN OUR SEARCH to find information that would best describe the opportunities in agribusiness today, we turned to the associations, societies, and organizations serving the various segments of agriculture. We ask them to describe the opportunities in their segment of the agricultural industry. It was necessary to keep the statements brief—too brief to tell the full story in every case. But if this information helps you identify a field of occupational interest, if it points you in a direction for making your final career choice, then it will have served its purpose. Obviously such a listing does not include all the organizations serving agriculture, but it is hoped that those appearing here are representative of the variety of opportunities existing in the agribusiness world today.

In certain instances, further information regarding agribusiness careers may be obtained from the association, society, or organization mentioned in each AgriOPPORTUNITY section. Your FFA advisor, school counselor or principal, and local businessmen can provide you with contacts in the other agricultural industries.

Agricultural Engineering

Five to ten job offers per graduate! Beginning salary range of $7,000 to $9,000! Wide assortment of employment opportunities! Long-range outlook very favorable! Satisfying and fulfilling work experiences! These statements summarize the employment outlook for today's agricultural engineering graduates.

Most graduates today receive about $8,500 and might expect advancement to $12,000 - $15,000 after about ten years on the job. Those with master's or doctor's degrees receive much more.

Agricultural engineers work in a wide variety of assignments—from development of tree harvesters to control of growth environments for plants and livestock, from applications of electricity on the farmstead to design of machinery for producing agricultural crops. They have planned irrigation and drainage systems and have conducted research to find ways of conserving our limited water supply. They are employed in the processing and packaging of food products and are involved in the design of feed-processing plants and facilities. They work in industry, for the federal government, with universities, on overseas assignments, as consulting engineers, or operate their own farms or businesses.

To study agricultural engineering, a student should take all the mathematics, English, physics, chemistry, and biology he can get in high school. Courses in writing, speaking, industrial arts, agriculture mechanics, and vocational agriculture give additional background. He should have mechanical and electrical aptitude, be interested in biological systems, want to know the "why" of things.

Agricultural engineering departments are located at agricultural universities in practically every state in the Union, or province in Canada. Faculty members are eager to help students and counselors with questions about the job opportunities or curriculum in agricultural engineering.

Additional brochures and information concerning agricultural engineering are available from American Society of Agricultural Engineers, St. Joseph, Michigan 49085. In requesting information mention that you read about agricultural engineering in *The National FUTURE FARMER*, and your request will receive special attention. *(By J. L. Butt, American Society of Agricultural Engineers)*

Agricultural Extension

"I am a county agent." When an employee of the Cooperative Agricultural Extension Service makes that statement in answer to the question, "what do you do," it can mean many things. It may mean that he works with the cotton farmer or wheat, rice, citrus, or peach farmer; or even the prune, apple, or watercress farmer. It may mean that he works principally with the beef cattle rancher or the feeder, the swine producer, or the dairyman; or he may be devoting his life to developing youth for the world of tomorrow.

He may be working with civic groups, a Chamber of Commerce, the county governing body planning a recreation area, the urban area in land-use planning, or the homeowner with her flowers and shrubs. He has at least a B.S. degree in such fields as agriculture, engineering, animal husbandry, economics, education, business, horticulture, or others depending on his place of employment.

His work may be with the rural people, or you may find him in a big city. The county agent is an educator, teaching both rural and urban people ways to better living in their community and in their home.

He is a joint employee of USDA, the land-grant university, and local county government; thus the name Cooperative Extension Service. He works under the supervision of the state extension director.

The basic educational requirement for a county agent is usually a B.S. degree in the field in which he will work. The salary of the county agent in 1967 ranged from $6,000 for the beginning assistant to about $15,000 for the senior agent. The salary scale varies from state to state.

For further information, you may contact the Cooperative Extension Service located at the land-grant university in each state. *(By Ansel Estess, President, National Association County Agricultural Agents)*

Agronomy

Soil is one of the largest, if not the largest, materials resource of the United States. Soil science, therefore, offers numerous career opportunities to men and women interested in sophisticated research and teaching, as well as those desiring work with nature. Also, in view of the urgent demand of an exploding population throughout the world, the immediate and future demand for crop scientists should rival that for chemists, engineers, physicists, and mathematicians in the Sputnik era.

Soil science and crop science are extremely important in the everyday life of man, as for example in the production of food, fiber, and shelter; in the construction of buildings, airports, dams, and highways; in the growth of plants which beautify our country and which in fact help to keep a balance of the oxygen and carbon dioxide in the air which we breathe.

The more fundamental aspects of soil science are investigated by soil chemists, physicists, mineralogists, and microbiologists. The specialists in soil fertility, fertilizers, conservation, survey and classification, engineering, and farm management use the fundamental knowledge in applications to everyday problems. The teachers, extension specialists, and administrators facilitate the spread of information.

Work as a professional crop scientist may involve: crop breeding and genetics to produce better varieties of new crops; crop physiology and management to get better yields; and crop quality improvements to increase the potential utilization of the crops. Extension workers are also needed to explain and promote new and better methods to the farmers who produce the crops. Selling, promotion, and marketing of new materials are required to make them available to more and more people.

Positions in soil science and crop science are available in hundreds of federal, state, and local government agencies and in thousands of large and small business enterprises. The job may be local, national, or international to meet the choice and qualifications of the individual. In view of the immediate exploding population throughout the world, the career opportunities of agronomists appear unlimited.

Qualifications and demand regulate salaries. Whereas present salaries range from $6,500 for a B.S. degree, $7,500 for a M.S., and $10,000 for a Ph.D. without experience to over $20.000 for research, teaching, and administration with extensive experience, one can expect a sharp rise in the future.

Preparations required to qualify as a soil scientist or crop scientist vary with the positions to which one aspires. A college degree is the minimum requirement. Advanced degrees are encouraged. Basic courses such as chemistry, physics, mathematics, and biology provide background knowledge for courses in crop physiology, crop management, soil management, soil conservation, seed production, turfgrass science, and other agronomy fields. Additional training in communication, economics, business, and cultural subjects is recommended.

Further details on training and opportunities may be obtained from the Soil Science Society of America, the Crop Science Society of America, or the American Society of Agronomy. All societies are located at the same address, 677 South Segoe Road, Madison, Wisconsin 53711. (*By Matthias Stelly, Executive Secretary*)

Animal Sciences

Animal sciences means farms, ranches, electronic computers, nutrition, breeding, processing, animal food displays, and salesmanship. Animal science is a giant food factory. Its customers enjoy broiled steak, ham and eggs, milk, and many other high quality nutritious food products. It means food and clothing to billions of people and jobs for millions. The challenge and opportunity for those with college training in animal sciences is unparalleled. Opportunities include farm production; farm services; marketing and distribution of animal products; sales; radio; TV; advertising; journalism; government, corporation, and university research; high school, college, and extension teaching; and top administration in corporations, colleges, and universities.

Those wishing careers in the many areas of animal sciences have more opportunities than at any time in history. Fewer are on the production line, but many more people are needed for agricultural services, food manufacturing, and the many other jobs which are necessary to place attractive wholesome animal food products before the consumer.

If you would like more information about a career in animal sciences or would like to know what colleges or universities offer a degree in animal sciences, write: Mr. W. E. Mayer, Business Manager, American Society of Animal Science, 39 Sheridan Avenue, Albany, New York.

Banking

Today, nearly 800,000 people work in banks. It is estimated that this figure will reach 1,100,000 by the mid 70's. Banks hire and train more than 200,000 people each year.

A position of special interest to people with an agricultural background is that of the bank agricultural specialist. The services rendered by the agricultural specialist include income tax counseling, farm planning, and advice on various financial matters. At times these men may actively manage farms for absentee owners, the bank, or its trust department. In smaller banks, these farm-trained men have many other responsibilities not related to agriculture.

It is estimated that over 1,500 banks of all sizes and in all parts of the country have agricultural specialists on their staffs. Farm men have a high degree of responsibility. As might be expected, the most prevalent responsibility is in the field of credit or loan services. This includes analyzing farmers' statements, making farm appraisals, making and servicing various types of farm loans in their bank, and working with life insurance companies and larger city banks on farm loan cases. Their services go beyond the credit aspects of banking, however. They attend or speak at FFA, 4-H, and other youth meetings; visit potential bank customers; meet with farm organizations, various public agencies, and businessmen; and promote community activities.

High school graduation is a must. And advantages that accompany the completion of a four-year college course or beyond are becoming more and more important. Still training does not stop at the time bank employment begins. On-the-job training in the banking industry offers good prospects for additional educational opportunities and promotion. Bank employee training opportunities include: (1) state and national banking schools, clinics, and conferences; (2) banking courses offered through the American Institute of Banking; (3) general orientation of bank departments, functions, and operations; and (4) training with an experienced person such as a bank officer.

Job openings are sometimes listed in the banking trade journals and bulletins. Colleges of agriculture, particularly their departments of agricultural economics, are helpful in making students aware of bank opportunities. For other possible leads, contact your district agricultural economists of the Federal Reserve System and executive secretaries of your respective state bankers associations. Direct applications to banks may also lead to worthwhile positions. (*By Derl I. Derr, Deputy Director, The American Bankers Association*)

Canning Industry

Employment in the canning and preserving industry is

widespread, both geographically and in the kinds of work performed. Because of the industry's seed-to-shelf scope, it employs workers whose duties involve every step from selection of seeds through planting, harvesting, canning or otherwise preserving, labeling, warehousing, transportation, sales, and consumer research.

In addition to farm specialists, production workers, food technologists, mechanics, and others who do the actual food processing, the industry also employs engineers, accountants, draftsmen, labor relations experts, office workers, salesmen, transportation experts, truck drivers, purchasing specialists, warehouse workers, shipping clerks, and many others.

The canning industry provides job opportunities for skilled, semi-skilled, and unskilled workers. It also provides part-time jobs at peak seasons, when the total cannery employment figure goes well over 300,000.

The professional opportunities include field supervisors, who supervise planting, growing, and harvesting; engineers, who are often involved in instrumentation, operation, timing and flow, and equipment arrangement; and food technologists, who apply modern science and engineering to the manufacture and distribution of foods.

The opportunities in sales and marketing are extensive for those who like meeting people, like travel, and like promotional ideas. There are also many openings in areas involving accounting, traffic and shipping, and warehousing.

For specific information and publications, write to: Communications Services, National Canners Association, 1133 Twentieth Street, N.W., Washington, D.C. 20036 *(By Harry W. Buzzerd, Jr.)*

Credit Cooperatives

Through more than a thousand Production Credit Associations and Federal Land Bank Associations and 13 Banks for Cooperatives, farmers and their cooperatives obtain one-fifth of all the credit they use. Currently this adds up to over $12 billion.

This vital service to American agriculture means exciting, challenging careers for agricultural graduates. These are careers of working closely with farmers and agribusinessmen, helping them solve financial problems—the real heart of any business venture—through effective credit services.

Specific jobs in the Cooperative Farm Credit System include fieldman, assistant manager, and manager for a Land Bank Association or PCA, business analyst for a Bank for Cooperatives, farm appraiser, examiner, computer technician, economist, and others.

Most of these positions require a college degree in agriculture in such areas as farm finance, farm management, and related fields of agricultural economics. Some call for college training in accounting and business administration. For all these positions a farm background is helpful. Salaries, of course, vary by job and an individual's training. But most begin around $7,000 and range upwards of $25,000 for key bank positions.

Economists predict that agriculture will require twice as much credit by 1980 as it is using today. This will require the best of farm credit services that can be provided and the best of men to provide them. From your standpoint, it spells a career with a whale of a challenge and giant-sized opportunity.

For more information about a Farm Credit career and a visit with a man already in the business, contact the manager of your local Production Credit Association or Federal Land Bank Association. *(By Jon Greeneisen, Farm Credit Administration)*

Farm Advertising and Marketing

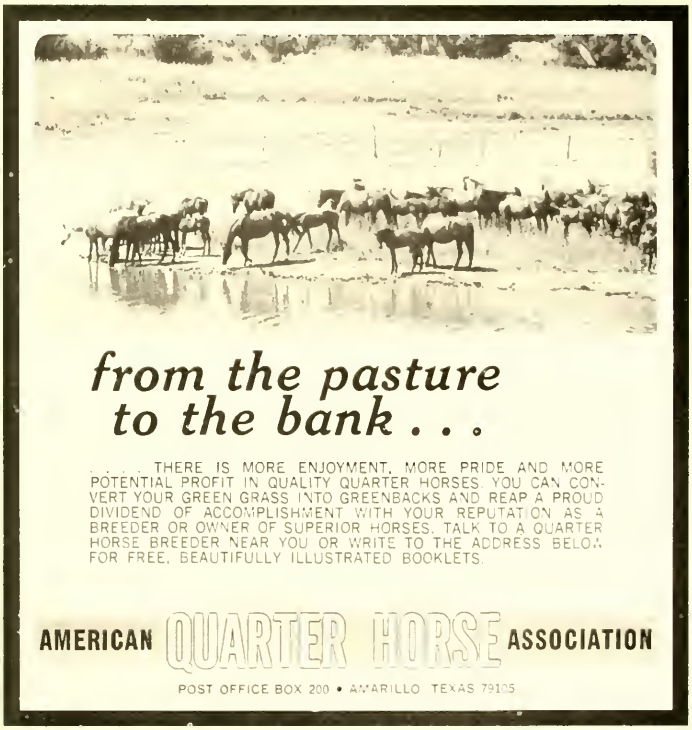
There are critical shortages showing up in many areas of agricultural communications, especially in the field of advertising. Chances are these will become even more pronounced in the future.

A career in agricultural advertising and marketing encompasses many areas. Knowledge in journalism, marketing, sales, advertising, and even art are important when considering a career in agricultural advertising. Computer science is also becoming a tremendous opportunity in the field of communications.

Creative opportunities await you in ad production, space buying, research, and copy writing. People interested in advertising and marketing can further their career in an advertising agency, farm publications, and farm broadcasting. Other businesses also need marketing people to sell and inform the mass public.

Your farm background—an important prerequisite—will be a definite asset in this field, because an important part of your training already will be completed. Chances are you will want to take some agriculture courses in college, too. This will help round out your qualifications for the advertising field.

As farming units become larger and more specialized, communications play an even bigger role. Being able to


from the pasture
to the bank . . .
. . . . THERE IS MORE ENJOYMENT, MORE PRIDE AND MORE POTENTIAL PROFIT IN QUALITY QUARTER HORSES. YOU CAN CONVERT YOUR GREEN GRASS INTO GREENBACKS AND REAP A PROUD DIVIDEND OF ACCOMPLISHMENT WITH YOUR REPUTATION AS A BREEDER OR OWNER OF SUPERIOR HORSES. TALK TO A QUARTER HORSE BREEDER NEAR YOU OR WRITE TO THE ADDRESS BELOW FOR FREE, BEAUTIFULLY ILLUSTRATED BOOKLETS.
AMERICAN QUARTER HORSE ASSOCIATION
POST OFFICE BOX 200 • AMARILLO TEXAS 79105

After graduation, what?

Stay on the farm? Get a job? Learn a trade? Go on to college? This is a tough decision—and a lonely one.

But whatever your plans when your FFA days are over, International Harvester will be proud to be a part of them.

If you plan to farm, you know you can count on your International dealer for the tools you need—the equipment, the parts and service, the financing—to help you grow and prosper.

If you choose not to farm, International Harvester can still be a part of your career plans.

Consider the opportunities at an International dealership. You may train to be a master mechanic, a parts supervisor or an equipment salesman. You may go on to own a dealership yourself some day.

And there are hundreds of different career opportunities with International Harvester Company itself — in design, manufacture, quality control, marketing, sales, administration and many more.

Whatever your hopes and plans, we hope you stay in agriculture. On the land or in business—you are our future.

First to serve the farmer

International is a registered trademark of International Harvester Company

speak the language of agriculture is a must. To sell products and ideas one must communicate fully.

Those who make the right preparations find agricultural advertising a most lucrative field. Normally one prepared for this field can start at least $2,000 more annually than in a like but not so specialized field. From there on, the limit of advancement depends on the skills of the individual.

So before you turn away from this basic industry, be sure to explore the many opportunities offered in agricultural advertising. Write the land grant college in your area; talk to your local vo-ag instructor or county agent; or contact the National Agricultural Advertising and Marketing Association (NAAMA), Washington Square, Philadelphia, Pennsylvania 19105. *(By immediate past president of NAAMA Chet Frazier, Bozell & Jacobs, 700 Kiewit Plaza, Omaha, Nebraska 68131)*

Farm and Industrial Equipment Industry

Your farm experience gives you a head start in taking advantage of the unlimited opportunities for young men and women in the farm and industrial equipment industry. You have had personal experience with the use and care of modern equipment. You know farming. And you know that the development of farm equipment continues to make one of the most significant contributions to the startling increase in agricultural productivity in America and around the world. Joining forces with this industry to meet the exciting challenges of the future can be a rewarding career in terms of personal satisfaction and financial success.

United States farm and industrial equipment manufacturers employ 140,000 people. There are big companies which employ many thousands. There are smaller companies which employ less than one hundred. And others in between. Many are located in the rural areas near you. Others are in the cities. Also, there are over 16,000 dealerships representing the manufacturers.

Within the industry there are hundreds of different occupations; doctors, lawyers, engineers, sociologists, psychologists, physicists, statisticians, economists, research analysts, actuaries, artists, writers, photographers, advertising specialists, accountants, computer programmers, printers, teachers, public relations specialists, salesmen, service men, mechanics, secretaries, clerks—there is need for almost any profession or occupation you can name and opportunities for the young man or woman with the necessary qualifications.

For any job, plan on more education if at all possible. There are post-high school training courses for mechanics. Many state colleges and universities now offer two-year courses which combine classroom instruction with on-the-job training for the retail end of the industry, as well as the courses leading to a four-year college degree. Some companies offer on-the-job training as well as tuition-aid programs for approved after-work courses.

For more information write to: Farm and Industrial Equipment Institute, 410 North Michigan Avenue, Chicago, Illinois 60611.

Farm Cooperatives

Don't let anyone sell you short on the future of agriculture in this country. The job of serving agriculture needs more men. To illustrate, farmers spend more than half of their gross income for production supplies—feed, seed, fertilizer, petroleum, machinery, etc.

You may not like to drive a tractor, but you may like to sell them. If you don't want to grow fruit, perhaps the problem of storage will intrigue you.

The agricultural industry is the biggest buyer, seller, and borrower in the U.S.—and it has the biggest investment. It takes more steel, more rubber, more petroleum, more trucks, more tractors, and more electricity than any other industry.

Agribusiness—the food and fiber produced on the farms, the transporting, processing, and marketing—takes up 40 percent of all consumer expenditures and employs 37 percent of the total labor force.

Career opportunities in agriculture are limitless, but perhaps you would like to work with self-help organizations such as farmer cooperatives. They need men in management. They need chemists; veterinarians; antibiotics specialists; agronomists; entomologists; poultry, dairy, animal husbandry specialists; agronomy, biology specialists—everything you've got.

Farmers operate feed mills, fertilizer plants, seed houses, grain elevators, packing houses, refineries, electric companies, telephone companies, insurance companies, banks, credit unions, retail supply stores, and research farms.

They need trained people in the factory and on the road. The cooperatives handling milk and dairy products, not counting the bargaining associations, need plant managers, ice cream makers, butter makers, cheese makers, milk specialists, and people who can work with the membership. Likewise, the poultry dressing plants and the egg marketing organizations need a constant supply of trained people. More of the larger cooperatives are adding women to their staff as home economists and organization specialists.

Cooperatives need trained people to edit their publications and work with their members. They also have a large interest in youth in agriculture and need people to work with these youth groups.

For more information concerning marketing, supply, and service cooperatives contact the local farm cooperative nearest you. They can give you detailed information about training requirements, salary, and employment benefits in farmer cooperatives. *(By J. K. Stern, President, American Institute of Cooperation)*

Farm Electrification

It takes people—lots of them—to design, build, sell, install, and maintain the growing investment in farm electrical equipment. It also takes lots of people to generate, sell, and deliver the electric power itself to the nation's farms and other users. In this broad field of electrical careers there are jobs to fit almost any young man's interests and capabilities.

For example, there are about 2,400 men in the country working for electric power suppliers (power companies, electric cooperatives, or public power agencies) and devote all or part of their time to marketing electricity to farmers. Their education ranges from a minimum of high school to as much as a master's degree in agricultural engineering or business administration. They earn from $7,500 to $12,000; more if they are in a supervisory capacity. They use the tools of marketing—market research, planning, advertising, publicity, public speaking, and face-to-face selling—to tell farmers of electricity's advantages for farm production and farm living.

They need men who can understand today's sophisticated equipment and controls, and can install it right and keep it running. A two-year technical education in electricity can really pay, especially if coupled with a farm background and mechanical and mathematical aptitudes. Jobs like this are going begging in the rural U.S. today, and sometimes command premium pay.

Additional information on electrical jobs is available from your local electric power supplier and from associations serving power suppliers, electrical contractors, and electrical manufacturers. The Farm Electrification Council, Box 1008, Oakbrook, Illinois 60523 has a brief folder, "Make the Right Turn to an Electrical Career," available to the individual without charge. *(By John Turrel, Farm Electrification Council)*

Farm Publications

Working for a farm publication is ideal for the young man who wants to be where the action is—where news is being made; where new ideas are springing up; where new discoveries are being made; where controversy is boiling; where interesting people are making things happen.

That's your world—up front where the parade is forming. You become a part of that world as you live in it, interpret it, and tell people what is going on there.

If you like this kind of an active world, and if you have a desire to help farm people, you're ready-made for a spot on a farm publication.

The communications world is mushrooming in opportunities. As agricultural technology becomes more specialized, there's a greater need for young men who will interpret the new frontiers for others. And communications techniques are making exciting changes. There are inviting opportunities in writing, editing, promotion, communications research, business management, printing, electronic application, etc.

If you want a challenge, independence, an opportunity to grow, and a chance to serve—what can be greater than the challenge to go anywhere, talk to anybody, and to write anything that will help farm people?

You've got a big start with a farm background that gives you understanding of what you'll be writing about and the people you'll be writing for. Fill in with agriculture and journalism courses and work on a college publication.

Salaries are moving up on farm publications as elsewhere. A salary survey a few months ago among members of the American Agricultural Editors' Association showed present salaries for writers ranging from $6,000 to $17,000. People in top editorial positions ranged from $10,000 to more than $25,000. *(By Claude Gifford, President American Agricultural Editors' Association)*

Farm Radio and Television

Professional farm broadcasters and telecasters have varied reasons for going into the business. The routes they took to get there vary too. Members of the National Association of Farm Broadcasters—almost to a man—list a farm background as a necessity. A large percentage of the NAFB members attended college, most majored in agriculture, and took some journalism. Yet a number of today's farm broadcasters used farming or ranching as a stepping stone. A few got there through agencies such as the Soil Conservation Service, Extension Service, and similar work experience. Many were members of youth organizations such as FFA.

Starting salaries vary as much as the size of the stations. They might range from $5,000 to $10,000 per year to start, though complete information in this area is almost impossible to come by. Some incomes are supplemented by a talent fee paid per program. Many feel that considerable respect from the public supplements their cash earnings.

The job involves taping interviews, editing and writing copy, making speeches, shooting film and pictures, writing commercials, handling a heavy load of correspondence, and possibly some sales work. Hours usually are long and sometimes gruelling, and mileage traveled is high. There is a fair turnover in this field and good chance of advancement. At a given time, there are usually job openings somewhere in the country.

If you're in reasonably good health, have a clear voice and a hankering for "show biz," have normal intelligence with a farm background, and plan on college work . . . if you're not fearful of long hours and want respect . . . and don't feel you have to be a millionaire . . . this area of endeavor may be for you.

Your local farm broadcaster or telecaster is your best source of information. Talk to him. He enjoys his work or he wouldn't be in it. *(By Keith Kirkpatrick, President, National Association of Farm Broadcasters)*

The study of soils, conservation, crops, and engineering are put to use in determining the use capability of land.

Meat and food products represent the vast opportunities for employment in processing, marketing, or distribution.

A career in the farm credit field can be in government, cooperatives, banks, insurance companies, or businesses.

Feed Manufacturing

Companies that manufacture feed vary in size from small units employing just a few people to some of the largest corporations in America. Their operations literally cover the U.S. map and can be found anywhere from tiny villages to large cities.

There are eight basic career areas in the feed industry. They are: nutritionists, who formulate and improve feeds and management programs; farm managers, who manage a feed company test farm; communicators, who create advertising, writing, and public relations programs; salesmen, who handle retail, wholesale, and ingredient selling; engineers, who plan facilities for the company and its customers (mechanical, electrical, agricultural, and civil are all needed); business, who handle accounting, credit, legal, personnel, traffic, and purchasing; veterinarians, who work with nutritionists and other researchers in determining animal health feed requirements and as consultants to the feeder; managers, who direct and formulate the company's overall policy.

Some jobs in these areas require people with college degrees—a few even require a master's or Ph. D.— others do not. But employees with a high school diploma are sought by all feed manufacturers. Anyone who wishes further information on careers in the feed manufacturing industry should contact: Gale A. Johnson, Director of Public Relations, American Feed Manufacturers Association, 53 West Jackson Boulevard, Chicago, Illinois 60604.

Fisheries Science

Fisheries science is a growing profession with a rapidly expanding future. In 1966 there were over 3,100 individuals in North America with professional or technical training in fisheries. By 1976 it is anticipated that the employment of fisheries scientists in North America will surpass 5,500.

Fisheries jobs are available in teaching, research, management, administration, and public relations. Fisheries science is now an established curriculum in at least 108 universities and colleges in the U.S. and Canada, and experienced teachers are in demand.

Fisheries research involves investigation of life histories, ecology, population dynamics, and behavior of fishes. Fisheries management includes such jobs as operation of hatcheries and commercial fish farms, estimation of populations and annual catch, weed control, chemical reclamation of streams and lakes for improved fish production, and many other phases of work. Fisheries administration concerns planning and coordinating fisheries work and programs. There is also a place for educational writers trained in fisheries principles.

In fisheries science, the future belongs to the trained man. High school students should acquire good academic backgrounds. Courses in biology, mathematics, chemistry, and, if possible, physics will help equip the student for a science career. English, languages, and social studies are important. Universities and colleges offer courses leading toward bachelor's degrees in biology or zoology. The more specialized branches of these sciences, such as fisheries, are generally pursued at the graduate level leading to the M.S., Ph.D., or D. Sc. degree.

For additional information, you can obtain a copy of the American Fisheries Society career brochure, "Fisheries As A Profession," by writing to the Executive Secretary, American Fisheries Society, 1040 Washington Building, Washington, D.C. 20005. (*By Robert F. Hutton, Executive Secretary*)

Forestry Conservation

The scientific development and management of forest lands and resources require many people trained in the application of plant science.

As a forest ecologist, forest manager, forest pathologist, forestry aide, and forest technician you will be responsible for forest protection from fire, insects, and diseases. Other responsibilities include timber measuring, surveying, selling timber, range management, pulpwood cutting, and the utilization of wood and its by-products. In the future, supervising camps on forest recreational areas will require planning and engineering of trails, roads, lookout towers, and nature hikes.

When planning a career in forestry you may want to contact your local forest ranger or land grant college for the suggested curriculums. Forestry is served by the Society of American Foresters and the American Forestry Association and the American Forest Products Industries.

Meat Industry

More challenging and more rewarding career opportunities exist in the meat industry today than at any previous time in history, and this trend is expected to continue in the years ahead.

This is the consensus of meat packers, processors, and sausage manufacturers throughout the United States. For the past six years, they have been supporting a recruitment and referral program through their national trade association, the American Meat Institute.

Major goal of the program is to call to the attention of students at high school and college level, as well as their faculty advisors, the demand for well-trained men and women to handle important technical and managerial assignments in the growing, stable, and constantly modernizing meat industry.

On behalf of its member companies, the American Meat Institute offers a free booklet, "Opportunities for You," which describes the need for personnel properly trained in the fields of sales; livestock procurement and handling; all phases of business and commerce; and many different areas of science, engineering, and communications.

A supplemental brochure, "Career Opportunities in the Meat Packing Industry," contains actual job specifications in more than 40 different categories. This brochure is intended mainly for vocational counselors, advisors, teachers, reference librarians, and placement officers.

Requests for this literature should be addressed to Cholm G. Houghton, Director of the Department of Membership and Personnel Relations, American Meat Institute, 59 East Van Buren Street, Chicago, Illinois 60605.

Milling Industry

Whatever your preference, you will find almost every facet of business in the flour milling industry. A rewarding future with stability and growth is yours in a choice of satisfying careers.

Students from all nations of the world—undergraduates and graduates, men and women—come to Kansas State University because it is unique . . . the only place on earth you can qualify for a bachelor's or advanced degree in milling science and technology. You gain complete university training in the humanities, engineering, the basic sciences, milling, baking, and related fields. In any one area, or any combination of major or minor subjects, you will gain professional qualifications that equip you for an interesting and rewarding career. A wide choice of positions in all phases of flour milling await a graduate with the well-rounded Kansas State education. In fact, the demand far exceeds the supply of graduates. Starting salaries are presently in the range of $8,400 to $9,600.

If your talent and desires lie in the science area, such careers as cereal chemistry, research, product develop-

What kind of research stands behind every Geigy product?

Behind every Geigy product is research that's more than just a search for new chemicals. Research at Geigy is dedicated to the development of dependable chemicals that definitely satisfy the specific needs of ever-changing farm practices.

New compounds which look promising in laboratory and greenhouse experiments undergo further screening at Geigy Research Farms in New York, Florida, Mississippi, Iowa, and California.

When a new compound's effectiveness is verified in these field plot trials it is released to agricultural colleges experiment stations, and other testing agencies for their scrutiny and evaluation.

But, you know how farmers are. Despite all this rigid pre-testing, they want proof that a product works for them on their farm.

That's why we also make continual on-farm checks. For instance, Geigy made 11,935 tests over 4 years to check yields in corn treated with Atrazine herbicide.

We invest in this kind of research because we know we must be sure Geigy products do exactly what we say they'll do.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Ardsley, New York 10502.

Geigy

CREATORS OF CHEMICALS FOR [illegible]

ment, sanitation, and quality control are open to you. If your future plans include engineering, then mill design and maintenance, equipment design and operation, or production planning and supervision are excellent career opportunities. Your ambition may be management. If so, you can find many promotional avenues open to you in procurement, finance, administration, sales, and marketing in the milling industry.

If you are interested in a career in the flour milling industry, contact the Millers' National Federation, 14 East Jackson Boulevard, Chicago, Illinois 60604, for further information. *(By C.L. Mast, Jr., President)*

Nursery Industry

The nursery community is one of the fastest growing segments of agriculture today. As the nursery community grows, there are increasing opportunities for personnel trained in horticulture.

Wholesale nurseries which grow trees, shrubs, and vines; landscape nurseries, mailorder nurseries, retail garden centers, landscape contractors, parks and greens superintendents, and other ornamental horticulture enterprises are looking for young men with some training in ornamental or landscape horticulture.

It is currently estimated that private nurseries producing and selling plant material employ over 20,000 full-time persons. This does not include those employed by landscape contractors, parks departments, greens superintendents, highway departments, estate gardeners, or grounds superintendents for governmental agencies and corporations maintaining a park-like setting for their offices and other installations. Young men who have had vocational and technical horticultural training in high school or at a junior college or vocational and technical institute are in greatest demand. There is a shortage of horticulture teachers for teaching at the high school, junior college, and four-year college levels.

A high school graduate with good vocational horticultural training in most areas of the country will begin at $75.00 a week or higher and advance as rapidly as he learns the skills and knowledge required for his job. Graduates with a two-year certificate from a junior college or vocational and technical institute will start in most sections of the country at $5,000 to $5,500 annually in salary and benefits. Four-year college graduates will start at $6,000 annually or better.

For additional information, write the American Association of Nurserymen requesting a copy of "Career Opportunities in the Nursery Industry" or to the National Landscape Nurserymen's Association requesting their vocational folder, "Have You Ever Thought of Being a Landscape Nurseryman?" The address for both associations is 835 Southern Building, Washington, D.C. 20005 *(By Ray Brush, American Association of Nurserymen)*

Pedigreed Livestock

The National Society of Live Stock Record Associations, founded January 11, 1911, is composed of 51 breed associations representing beef, dairy, and dual purpose cattle; swine; sheep; goats; and horses of all types. They have a combined individual membership of over 350,000 breeders. Registering over two million purebred animals yearly, the job opportunities for Future Farmers in this field are unlimited.

Pedigreed livestock breeders throughout the nation seek good young people trained in FFA programs. Under the supervision of these master breeders, they can develop into specialists in the breeds of their choice and qualify as head herdsmen, trainers, shepherds, or livestock farm managers in our highly successful breeding establishments. You see them at shows, sales, and livestock meetings everywhere —the respected leaders of the great pedigree livestock industry.

It is from these men, trained in every phase of the pedigree business, that the associations hire their fieldmen, youth leaders, publicity men, and specialists in the promotion of the breeds. The breed magazines and agriculture press draw on this group for their fieldmen and advertising people.

Feed companies, pharmaceutical companies, meat packers, meat departments of chain stores, stockyard companies, livestock representatives of banks, and in fact all agribusiness provide job opportunities for purebred livestock oriented young men.

You can get a report listing the names of our membership, with whom direct contact can be made, by writing to Allan C. Atlason, Secretary, 3964 Grand Avenue, Gurnee, Illinois.

Pesticide Chemicals Industry

The pesticide chemicals industry produces basic chemicals and formulates them into products used by farmers, growers, and specialized custom applicators to protect crops from insect pests and plant diseases and to control unwanted vegetation. Over sixty thousand pesticide formulations are currently registered by USDA for such uses.

These products are developed through an elaborate technical process involving many years of laboratory and field study and the expenditure of millions of dollars. To accomplish this, pesticide manufacturers and formulators employ many persons holding the degree of Bachelor of Science, or higher, in such fields as economic entomology, plant pathology, horticulture, biology, biochemistry, analytical chemistry, forestry, pomology, veterinary science, chemical engineering, and related fields. The need for qualified men increases each year. Positions must be filled in basic and applied research (for those who have acquired advanced degrees), as technical advisors, in sales, manufacturing and formulating, plant and equipment design, and others.

Degrees in these fields of study are granted by land-grant institutions in every state as well as by many other universities. The specialized studies leading to advanced degrees are also available at most land-grant universities.

A person entering the pesticide chemicals industry can expect to receive a starting salary in keeping with his education and the economic factors in the area where he is located. When he develops and applies confidence, poise, initiative, vision, and good judgment to daily tasks, the future will become increasingly fruitful and economically successful. *(By Denis Hayley, National Agricultural Chemicals Association)*

Poultry Industry

Employment outlook is good in the poultry industry because of the rapid growth, developing areas of specialization, and shortage of qualified personnel. Technologists are needed to apply expanded science to the processing of poultry products.

A college degree with specialization in poultry science aids a great deal in obtaining the better paying positions such as geneticist, pathologist, food technologist, marketing specialist, nutritionist, and veterinarian. Specialists in these areas are in demand in universities, private industry, and government work.

In the production of poultry and eggs, there is continual employment on independent poultry farms. Supervisors and farm managers are needed in the large production complexes.

Although fewer in number than a decade ago, hatcheries are now much larger and hatchery operation is a specialized business. The hatchery manager is responsible for procurement of hatching eggs, incubation practices, disease control, sales, personnel, and business records.

The greatest void in the poultry field is that of marketing

We can't make it grow bigger,

but we do help it grow better.

The world's supply of arable land is limited. Its supply of people is not. To help the same land feed more people, these are some of the products we make: ORTHO Unipel Fertilizers, ORTHO pesticides, fungicides, and insecticides.

ORTHO

CHEVRON CHEMICAL COMPANY
ORTHO DIVISION. San Francisco, Calif. 94120
Helping the world grow better

specialists. The marketing of both poultry and eggs is big and highly specialized. Marketing eggs includes purchase, proper handling, grading, packing, and delivery. The same things are necessary in poultry processing operations, with many large plants also working extensively with further processed items.

In all of the areas mentioned, there are positions for common labor, supervisors, inspectors, graders, quality control personnel, executives, and the sales and marketing people necessary for the final disbursement of the product to the ultimate consumer. *(By Cliff Stewart, American Poultry and Hatchery Federation)*

Seed Trade

The seed industry offers a pleasant combination of indoor-outdoor work, local and long distant travel, and opportunities to meet people in all phases of agriculture.

In the seed vocation you can choose careers in management, sales, research, seed production, agronomic services, accounting, and data processing. Management positions begin at the local plant level and range from district managers to company presidents. Sales opportunities lie in sales planning, dealer training, and coordinating seed production with product demand. In research you combine laboratory work with field tests to develop new and improved varieties of seed. Seed production responsibilities include contracting with farmers for seed acreage, planting and management of the seed crop, and processing the seed by sizing, treating, bagging, and warehousing.

The agronomic services of a seed company demand good public relations representatives. As a technical serviceman you would work with customers to diagnose and treat problems of fertility, disease, and insects. Servicemen also help farmers select correct seed varieties.

Perhaps your local seed dealer can provide you with more detailed insights of the seed industry. For further information ask for the address of your state seed trade association. *(By Bruce Price, American Seed Trade Association)*

Teaching Vocational Agriculture

Last year there were 10,221 teachers of vocational agriculture in the United States, and a total of 1,104 new teachers were required for new and replacement positions. Unfortunately, there weren't enough teachers. Across the nation, 117 schools had to close out their vo-ag departments because of the shortage of teachers.

Vocational agriculture today represents a dynamic career. It's versatile. There are new off-farm agriculture occupation courses in one of every three vo-ag departments at this time. It is specialized. One-fourth of the vo-ag teachers in 1967 were in multiple teacher departments permitting the teacher to work in his favorite area.

Unlike most other teachers, vocational agriculture teachers are employed on a 12-month basis. Salaries are becoming better each year. Salaries range from $7,000 to $15,000 with the average salaries in many states now approaching $10,000.

Generally, the vocational agriculture teacher needs to have the leadership capability which is demonstrated through FFA activities, a fondness for outdoor life, good grades in high school and in college, and the initiative and imagination to keep up to date with a changing agriculture. Probably the most important quality is the desire to help others.

Degrees in agricultural education are offered by 76 institutions across the country. Almost every state has a department of agricultural education as a part of their college of agriculture or college of education in their land-grant university.

Just for size, put yourself on the other side of the desk in your vo-ag classroom. You may find opportunities you didn't know existed, a real need for your services, and some of the greatest satisfaction of your life. *(By Ralph Woodin for National Vocational Agricultural Teachers' Association)*

Weed Control

Losses due to weeds not only exceed those of any other pest, but are probably equal to or greater than the combined losses from all other agricultural pests. It is the job of the weed scientists to combat this tremendous annual loss.

Weed science involves the study of weeds and their control by cultural, mechanical, biological, chemical, and combination methods in field and horticultural crops, pastures and rangelands, aquatic and non-crop areas.

Since weed science is a relatively new field, there is a tremendous need for men. Men working in weed science are usually involved in one of the three major areas: research—working for federal, state, or industrial research organizations; merchandising of chemicals—working as a marketing specialist, consultant, salesman, custom applicator, or in technical service; education—involving such areas as teaching, extension work, or foreign service related to weed science.

There is no standard amount of education or training required, but opportunities increase with more education. There are opportunities as research technicians or salesmen for people who have some college training. As more college background is obtained, more opportunities become available. Salaries vary with the training and with the position obtained. Research technicians have incomes in the area of $5,000 to $7,000 a year. Income goes up from this level to research men with a Ph. D. degree who are in charge of major research programs and receive several times this salary.

For further information and brochures concerning this challenging field, contact the Business Manager, Weed Service Society of America, Agronomy Department, University of Illinois, Urbana, Illinois, or the weed scientist at your state university. *(By P. W. Santelmann for Weed Science Society)*

Wildlife Conservation

In its broadest terms, wildlife conservation is human effort to manipulate the natural resources of soil, water, plants, and animals (including man) for the best interests of man. Scientific wildlife conservation includes a variety of occupations demanding workers with many skills and interests. A wide choice of careers is open to you, including those of wildlife management biologist or wildlife research biologist on land or sea, administrator, information specialist, educator, enforcement officer, consultant, planner, or naturalist. A college education is essential for most of these occupations.

In wildlife management, you might manage a wildlife refuge or public game area, make surveys, restore marshes, improve lakes and streams. As a research scientist, you must collect, analyze, and interpret facts. In the information field, you interpret research facts to the public by writing articles or pamphlets, taking pictures, giving speeches, or working in radio or television. Extension workers offer technical assistance in wildlife conservation practices to an individual, industry, or citizen group.

The modern conservation officer may be a game manager, take censuses, control wildlife populations, or recommend seasons and is a year-round educator as well.

Starting positions for holders of bachelor's degrees pay between $5,500 and $8,000 a year, and the trend is up. Depending on education, ability, and long experience, you may reach as high as $14,000 to $18,000 or more per year. *(The Wildlife Society, Washington, D.C. 20016)*

INDUSTRY VIEWPOINTS OF AgriOPPORTUNITIES

AGRICULTURAL BUSINESS • EDUCATION • RESEARCH AND DEVELOPMENT • FORESTRY AND CONSERVATION • COMMUNICATIONS • AGRICULTURAL INDUSTRY • AGRICULTURAL SERVICES •

THE COMMENTS EXPRESSED by the executives in this section of AgriOPPORTUNITIES represent a broad area of the agribusiness complex in the United States. It is unfortunate that all businesses in the various fields of industry cannot be represented individually in the industry section. However, we feel the information about opportunities, recruiting, education, training, and career planning pertains to all business, large and small.

As possible workers in agribusiness areas, you will appreciate knowing the principles of private industry. Mr. L. W. Davis, chairman of the Sponsoring Committee of the FFA Foundation, stresses, "The profits of business are for people. People own business; more people own more business every year as is shown by the increase in public ownership of companies' shares. The dividends paid to the shareholders are the shareholders' profit on their investments in the companies. As part of the company profits are reinvested in the business, the business grows and is kept vital. The value of the assets backing the shareholders' shares increases. The growth of the company from reinvestment produces more profits to be shared among the shareholders, which causes others to want to invest in those shares. Thus, the increased demand for shares is one cause for the public offering price to rise. A shareholder who sells his shares for more than they cost him receives an additional profit.

"From the profits earned on investment, business pays salaries and provides retirement plans and insurance plans along with many other important benefits to its employees. It pays taxes. When it borrows money from lending agencies or by selling interest-bearing debentures or preferred stock, it pays interest on its obligations. This interest comes from profit earned by the business and becomes a source of profit to those who loaned money to business.

"If we do not make profit, but consume our capital instead, we go broke, whether individual or corporation. Singly or in companies, broken people pay no taxes, build no buildings, make no products, offer no jobs, support no communities, give nothing to charity.

"An employee sells his time and ability for a salary. He saves the excess of what he gets over what he spends. These savings are his "profit" on his salary; the earnings from his invested savings are an additional profit for him. Everything we have, whether individual or corporation, came into being out of profit. We work for profit, individually and collectively, and we live according to how we profit."

Agribusinesses Greatest Opportunities

(K. R. Fitzsimmons, General Manager, Shell Chemical Company)

The opportunities are everywhere! Whatever the individual's preference whether it be sales, manufacturing, administration, or research, there is opportunity in our industry. We, and our competitors, are in a highly technical business, and we need men trained in the sciences, business, and law with degrees ranging from bachelor to doctoral level.

There is also a great deal of flexibility in our company. A chemical engineer in our manufacturing organization may find, after a few years, that he has developed an interest in marketing, or a laboratory researcher may want to try his hand at sales. Wherever possible, in keeping with the interests of both the individual and the company, these vocational transitions can be arranged.

(J. F. Bourland, Vice President, American Cyanamid Company)

The day of the skilled professional has arrived in agribusiness! The young man who has a basic knowledge and interest in agriculture has a wide choice of related fields for which to prepare himself by specialized study. Closest to the actual farming operation will be the basic job of farm manager. An equally professional approach will be required in the future, regardless of whether this manager is running his own family farm or is working as a part of the professional management team of a larger farm partnership or corporation. The manager must be well-grounded in the agricultural sciences but also be capable of making sound business judgments in connection with purchasing, marketing, and money management.

The farm manager will learn to demand from his suppliers of chemicals and equipment, expert advice and a number of specialized services as a part of the price of doing business. Manufacturers of agricultural chemicals, for example, are already offering a wide variety of services, such as soil testing and recommendations on crops to be planted; fertilizer, pesticide and herbicide application plans; and soil cultivation methods, farm record keeping, etc. This expanding demand for services is creating new jobs in the technical service staffs of the basic manufacturers.

There is also a need for salesmen with a higher level of technical knowledge in order that they may best know how to utilize the support of these technical service forces.

The rapid increase in the number of bulk fertilizer distribution plants throughout the major agricultural regions has created the need for a combination salesman-plant manager-technical service representative-businessman with a background knowledge of agriculture.

Finally, but of very great importance for the future, is the expanding demand for scientists to carry on the research which will be needed to develop the new "agricultural systems"—the efficient combination of specialized equipment and agricultural chemicals which must be discovered if

the agricultural revolution is to maintain the pace of the years just past.

(R. Hal Dean, Chairman of the Board and President, Ralston Purina Company)

Sales is a key marketing function and probably the most misunderstood of any in agribusiness. Actually, the sales representative of a company conveys modern technology . . . he becomes a partner to the producer on the farm or a field service center in a community . . . he is a commercial extension specialist. He receives a great deal of personal satisfaction from those efforts which help producers get more from their resources. The "typical salesman" of a few years ago will soon be a legend of the past and has been replaced by a knowledgeable sales or marketing specialist. This modern salesman is in short supply and most companies are actively seeking young men with the desire and capacity to handle this vital responsibility.

The opportunity for engineers in business is exceptionally good. The nature of most food processing plants will offer this technical man an opportunity to use broad management skills. He will spend a relatively small percentage of his time working on the drafting board. The engineer's duties may include a variety of finance-oriented responsibilities.

(L. W. Davis, General Manager, Farm Equipment Division and Vice President, Allis-Chalmers Manufacturing Company)

In the farm equipment field, manufacturing offers the greatest number of job opportunities and encompasses a wide variety of skills and aptitudes, ranging from common labor to general management. Those jobs in manufacturing which offer the greatest opportunity for income and advancement obviously require college training in one or more special fields. These special fields include industrial engineering, manufacturing engineering, industrial relations, materials management (including purchasing, traffic, inventory control, production scheduling, etc.), and financial analysis and control (including systems, data processing, and accounting). General management in manufacturing is selected from outstanding performers who have achieved mastery of and proficiency in one or more of the specific skill fields above, and who have had a multi-functional background of experience which includes the demonstrated ability to plan, organize, integrate, and measure activities related to the whole of the manufacturing function.

The second largest number of job opportunities lie nearly equally between the engineering of the products to be manufactured (including applied research, development, and final product engineering) and the marketing function, which includes product planning, market research and testing, forecasting demand and movement, coordination of production scheduling with the producing plant, coordination of marketing planning with both engineering and the plant, product promotion and advertising, training of sales and service personnel, selling, financing (including credit, collection, and account control), warehousing, distribution analysis and planning, and accounting and measurement.

Generally, opportunities nearest to farm youth are in field sales and service. The products of a manufacturer are sold through either wholesale distributors or factory sales and warehousing branches to retail dealers, who in turn sell to retail customers. Successful performance of the various functions involved in field sales requires education of college level. Special two-year courses are available for service and retail sales people and represent the practical minimum of higher education required for competence in those fields.

The opportunities for employment are as salesmen, servicemen, parts men, and accountants by distributors or factory wholesale branches, and by retail dealers. Product and methods training on-the-job and in short-course special schools is generally provided by the manufacturers. There is also opportunity for competent salesmen to work into partnerships or stock ownership in incorporated retail dealerships with the ultimate prospect of becoming a dealer.

Recruiting Agribusiness Personnel

(Douglas K. Hanson, Sales Manager, Funk Bros. Seed Company)

I look for the academically well trained individual, but beyond this, I look for a man in selling and working with a dealer force who likes people; a man who can communicate. I also like to see strong loyalty in my men to their company and products. How can you sell someone on your products unless you're sold yourself? I have often said that if my men would always sell their company as hard as they sold themselves to their wives, we would be all right. Honesty is, of course, a prime qualification in getting and holding any job.

We expect a new employee to show a willingness and eagerness to learn. Bradley University basketball coach, Ferdy Anderson, once said, "Give me all the second and third string all-staters in Illinois, and I'll make a winning team. I can teach them my way." This does not mean that new personnel shouldn't express ideas. It only means they should listen and learn all they can about their company and then make suggestions with a broader concept of their company's objectives. Also, I believe any company expects a person's loyalty, just as his parents do.

(J. R. Altman, Coordinator of Recruiting and Hiring Services, Geigy Agricultural Chemicals)

The majority of our management personnel in marketing and administration come up through the sales ranks. We seek applicants from agricultural colleges, other agribusiness companies, and government agencies. Some of our young men have spent several years teaching agriculture prior to joining our staff.

We are looking for young sales and research personnel who want to succeed, are creative and willing to work, want to make a contribution to agriculture, and possess the ability to meet with people.

(L. W. Davis, Allis-Chalmers)

As the farm population shrinks there will be fewer who possess farm background advantages; as the farm becomes more business-management oriented the traditional outlook and attitude of farm-reared youth may undergo some change. There has been a tendency in the past to characterize as "tough-fibered" a society which is closely related to agriculture, while societies which were highly urban were more inclined to be "brittle." The relatively higher degree of self-sufficiency of the rural man and his relatively greater power to withstand adversity and to be resilient have long been noted. Such qualities are important in all business.

(R. Hal Dean, Ralston Purina)

In recent years every facet of agriculture has had to develop a strong business approach to their operations. The application of business principles are critical not only to the marketing of end-products, but to production, manufacturing, distribution—even research and development. We would highly encourage all young men to supplement their agricultural background and formal training with a basic understanding of business principles.

The importance of a positive program for the marketing of end-products cannot be overemphasized. Young men must understand many significant factors affecting marketing and the fact that marketing knowledge can be critical to them in a variety of other positions which are indirectly tied to marketing. This is one reason why many agribusiness companies seek young men for starting positions in sales.

(Ben H. Warren, General Manager, Farm Equipment Division, International Harvester Company)

The college campuses are our major source of new talent. We actively recruit students with a variety of academic backgrounds including agriculture; agronomy; mechanical, electrical, industrial, and agricultural metallurgical engineering; business administration; liberal arts; economics; marketing; mathematics; and so on down the line. The diversity of our operations demand this wide variety of educational backgrounds.

The writer of this ad is a farm kid.

So what's the point? So, there are opportunities in agribusiness that may never have occurred to you.

Here at Pfizer for example, there are ever widening agri-opportunities in sales, marketing, research, veterinary medicine, law, public relations, advertising and more.

How big are the opportunities? Worldwide agricultural sales in 1967: $81 million. Forecast: Continued growth in a dynamic market place.

Name the region, Pfizer's Agricultural Division is there from New York to California, Texas to Minnesota. And Pfizer's interest extends beyond our shores. There are 84 Pfizer plants in 32 countries around the world.

If you are seeking a career that is personally rewarding, as well as beneficial to your fellow man, you're the kind of "farm kid" Pfizer is looking for.

For additional information concerning your future with Pfizer, write to College Relations Manager, Department FF 12.

Pfizer

AGRICULTURAL DIVISION

235 EAST 42nd STREET • NEW YORK, N.Y. 10017

(J. F. Bourland, American Cyanamid)

In our company we prefer men with a farm background and some amount of formal training in agricultural sciences as a foundation. But added to this, we are looking for specialized skills in the particular part of our business into which the young man is expected to move. For those men beginning careers in the technical side of our business (such fields as new product research and development, customer service) preparation in college and even graduate training in agricultural, chemical, or biological sciences is preferred. At least some college-level study in business administration, accounting, or related courses is required for those looking to careers in the operation of our farm service centers. For the marketing of the broad line of products "for the man who makes a business of agriculture," we draw from those who have trained in either the technical or business fields.

(George C. Delp, President, New Holland Group, Sperry Rand Corporation)

We look for young men—and women—in all segments of the population. We find, however, that most New Holland people, at all levels, come from farms or small towns rather than cities, and there are at least two reasons for this. First, rural and small town people are more aware of the needs and requirements of agribusiness in general and, secondly, more of them just naturally look for an agribusiness career. The special feeling that these people have for the farmer and his problems is an important factor in producing a quality product.

We don't make a farm background a qualification for employment (except, of course, for the managers of our experimental farms and for similar positions), but many of the most successful New Holland people have lived on farms at one time or another. The implications are clear. Regardless of how he expects to specialize, anyone who hopes to have a career in agribusiness should—most importantly—learn everything he can about farming. Training in special areas is, of course, important, too, but just as most career sailors grow up by the sea, most good agribusinessmen grow up near the land. There is opportunity for everyone in agribusiness, but farm youngsters have a built-in advantage. Thus, the young man who has grown up on the farm knows about half of what agribusiness needs of him before he begins to specialize, and he, therefore, has an advantage over non-farm youngsters.

(John J. Powers, Jr., President, Chas. Pfizer and Company, Inc.)

Agricultural career opportunities at our company are reflected in recruiting and are concentrated in three areas: research and development, marketing, and sales. A genuine interest in agriculture is a prerequisite for these positions.

Research and development positions require individuals with graduate school training in veterinary medicine and nutrition; supplementary training in microbiology, physiology, and biochemistry is helpful. Success in a research effort depends not only on a thorough technical grounding, but an inquisitive and ingenious nature as well.

Marketing opportunities call for persons who understand the principles and techniques of modern marketing (including both technical and consumer-type products). Marketing methods used to reach the new breed of farming businessman—the agribusiness decision maker—have undergone significant change as sophisticated techniques have replaced out-dated practices. Knowledge of agriculture is desirable as I have indicated, but is not a prerequisite. Sales openings are filled by persons who have personal attributes which are consistent with those of a successful salesman. As in marketing, a background knowledge and/or training in agriculture is helpful, but success depends more on one's ability to effectively sell a line of products.

(K. R. Fitzsimmons, Shell Chemical)

The importance of a farm background varies with the activity the individual will perform. An accountant, plant engineer, or purchasing man wouldn't necessarily need such a background, while a salesman would find it beneficial if not essential. Our organization has had some very successful marketing people who did not have this history; however, if asked, I'm sure they would agree it would have helped. Further, with relation to our seeking college graduates technically trained in the agricultural sciences, a person without the environmental heritage of the farm would be unlikely to follow the type of academic program which we find preferable.

Company Training and Personal Development

(Ben H. Warren, International Harvester)

I much prefer to talk in terms of "personal development" rather than "training." Training smacks of a "pre-performance" program. In our programs, a totally adequate, but minimum amount of time is spent in familiarizing the young man with his function. Shortly after he is hired, he is exposed to actual work situations and is given responsibilities up to the very limits of his experiences and abilities.

What we have done, in effect, is to eliminate that period of "observing" which is normally associated with a pure "training" program. After all, we cannot expect the young man of today with four, five, or six years of college work behind him to be satisfied with a program that merely recasts him in the role of student. He has earned the right to apply his academic and personal experiences to a specific and productive job just as soon as possible.

But, while this "on-the-job" performance is the key to his personal development program, he will go only as far and as fast as he is willing to probe and study our business. Towards this end, he is given unlimited access to pertinent information with which he can enlarge his understanding of our business and expand his own performance perimeters.

(K.R. Fitzsimmons, Shell Chemical Company)

This will vary from company to company. Some organizations conduct training programs which are so regimented they are almost an extension of college. We are more flexible. In most cases, a training period is tailored to the individual, and the length of the program is a function of both the job at hand and of previous experience. We do conduct a semi-annual week-long orientation program for new employees; however, the greater proportion of our new employee training is of the on-the-job variety.

Aim Schooling at Career Objectives

(R. Hal Dean, Ralston Purina)

A young man who intends to follow a career in a technical field should concentrate in his area of study. If his speciality is to mesh into the agribusiness complex, he should complement his background with basic principles of business, such as marketing and finance. A typical candidate for sales, production manager, or general administration should strive for a sound balance of business oriented courses with some emphasis on those skills which will prepare him for the many people relationships in the business world.

(John J. Powers, Jr., Chas. Pfizer and Company, Inc.)

It has been said, and not without some justification, that we are tending to educate too many technical experts and too few leaders. We need technical experts, to be sure—and today more than ever. But we need equally those men and women who are trained in the liberal arts tradition—those whose minds are drawn to the larger questions of society's future.

(George C. Delp, New Holland)

There are so many jobs in agribusiness that it is simply impossible to recommend a general education pattern for success. Someone who wishes to specialize in agricultural advertising, for example, should take advertising courses and make it a point to learn or know as much as possible about farming. On the other hand, there are many jobs for which a general agriculture curriculum is the best preparation.

a Roll-Gard at Farming Frontiers '69

When a tractor rolls, somebody usually gets hurt. Or worse. That's why John Deere developed Roll-Gard. Its sturdy steel frame protects the operator and usually prevents a tractor from rolling over completely. A Roll-Gard will be given away at the Farming Frontiers '69 Program in your area. It's an exciting and informative program every Future Farmer will enjoy. Watch for show dates. Attend FF '69.

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JOHN DEERE

His 29 years in agriculture all started where FFA began...

Tom Cox took his first giant step toward a career in agriculture back in 1933. That's the year he earned his B.S. in agricultural education at Virginia Polytechnic Institute—the school where the idea for FFA was originally formulated by Henry C. Groseclose.

Tom did not return to the farm to stay, but he decided to remain close to farm people in whatever he did. For the next 3 years, he taught agriculture in Bath County, and managed FFA chapter activities.

Seeking specialization, Tom earned his M.S. in soil chemistry from Michigan State University in 1938, and then served as a research agronomist at the Rhode Island Experiment Station.

Tom joined our Cyanamid staff as a field agriculturist in 1946. Since then, he has traveled hundreds of thousands of miles, helping farmers to get maximum crop yields for their fertilizer dollars. Tom has earned a reputation for his knowledge and counsel on problems in fertility and crop management. Today, as Cyanamid's manager of plant nutrient development, Tom still travels to work with Cyanamid's expanded field force of agronomists and farm service centers.

Men such as Tom Cox—raised on farms and educated in agriculture—have been the key to our sixty years of service to farming. Their abilities help Cyanamid develop and produce reliable products to increase farm productivity and profits: products such as Aureomycin®—Aureo S·P® 250—Malathion—Cygon*—Thimet®—Sulmet®—Cyprex® and many others including phosphate and nitrogen products.

If you would like to know more about Cyanamid in agriculture, send a postcard or letter to Tom Cox, c/o Cyanamid, Princeton, N. J. He will be happy to hear from you and to send a reply.

*Trademark

®AUREOMYCIN is American Cyanamid Company's trademark for chlortetracycline.

®AUREO S·P is the trademark for a premix of AUREOMYCIN® chlortetracycline, SULMET® sulfamethazine and penicillin

CYANAMID

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PRINCETON, NEW JERSEY

SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

This Rent Plan LETS YOU TAKE CHARGE!

TODAY many young men are renting their way into farming. It's not only a good way to break the entry barrier into farming, but an excellent plan for expanding your home farm as well—a way to keep "growing" so that farming returns are comparable to other careers.

If you are set to rent a future in farming, here are goals you will probably be looking for: the freedom to farm the way you want . . . to take charge, freedom to make improvements, and security of tenure so you can cash in on the improvements you make.

Your own boss. A system of renting, sometimes called flexible cash rent, allows you to make decisions on what crops you grow and how you grow them. Reason: The way you farm does not affect the amount of rent you pay so the landlord is less concerned about what you grow or how you grow it.

Thus, your freedom to farm is increased. There is less chance for disagreements, and your goal of keeping the farm year after year is improved. Then, too, because you can expect to rent the farm longer, your freedom to make improvements is increased, and you are less likely to lose the benefits of your improvements and hard work.

"Oh, Filkins! What's our policy on loans for small ant farms?"

Easy to sell. This system is easy to sell to a landlord because he won't have to worry about the farming practices you follow, about the division of crops, or about the upkeep of land and buildings.

Flexible cash rent has the main advantage of both fixed cash rent and crop share rent. It's like fixed cash rent in that neither party can affect the amount of rent to be paid after the lease is signed. But it's like the crop share rent in that the rent varies with the county average yield of the most important or "king crop" in your county.

Find county average. Why haven't you heard of this rent plan if it has so many advantages? Until recently, county average yields have not been available until April or May of the following year. Now, however, many counties are making this information available early—in late December or January.

How can you get this information? Check with your crop and livestock reporting service. This information is usually given only to those landlords and renters who request it. They will also provide you with crop prices.

If this information is not available early for your county, a partial solution has been to require a preliminary settlement when the crop is harvested. A final settlement is made when the information is released.

Easy to figure. There are several ways to make the calculations, but the easiest seems to be to multiply the county average annual yield of the "king crop" by your percent share, times the price of grain at harvest.

County Ave. Annual Yield of Crop	X	Percent for Flexible Cash Rent	X	Price of Grain at Harvest	=	Flexible Cash Rent

Here's how it works. Suppose that the county average yield of your "king crop" is 45 bushels. Your rental share is 40 percent, and the price at harvest is $1.00 per bushel. Your rent is figured in this way:

45 bushels X 40 percent X $1.00 = $18.00 rent.

Apply to all crops. Since the entire farm may be affected by a drought, it may be desirable to have the rent on other land such as permanent pasture and native hayland vary with the yield of the "king crop."

This can be done if the rent for the various kinds of land is expressed as a percentage or part of the annual county yield of the "king crop." An example of this is shown in our chart.

(Continued on Page 46)

This Rent Plan LETS YOU TAKE CHARGE!

(Continued from Page 45)

How a flexible cash rent based on "king crop" (your county's most important crop) can be used for various kinds of land. For an explanation of this chart refer to the following definitions.

Kind of Land	Acres	Annual Average Yield per Acre	Rental Share per Acre	Rental Bushels Per Acre	Total Bushels Of "King Crop"
Cropland	200	40	.40	16	3,200
Native hay	50	40	.20	8	400
Pasture	100	40	.20	8	800
Lots, etc.	10	40	.30	12	120
Wasteland	10	40	—	—	—
Totals	370				4,520

Kind of land. Include not only the "king crop" but all other crops under "cropland." Native hay is separated because it is usually produced on cheaper land. The same is true of permanent pasture.

Acres. "Lots, etc." should include not only land required for barnyards but also fences and lanes. "Wasteland" should include public roads, swamps, old gravel pits, and other non-productive leased land.

Annual average yield. The long time average or normal yield of the "king crop" is used here to estimate the normal rent under flexible cash rent. The actual rent for any given year will vary with the annual county average yield of the "king crop" for that year. Merely substitute the annual county average yield for the normal yield of 40 bushels in this chart to determine the rent for any given year.

Rental share. Here the cropland rent is set at a two-fifths or 40 percent of the expected "king crop" yield. Because soybeans, oats, barley, flax, or other less profitable crops may be grown on some of the land, a 40 percent share may be too high. Note that the native hay and permanent pasture is set at only 20 percent of the "king crop" yield. At $1.00 per bushel this would be $8.00 per acre.

The landlord would need to charge an additional fixed cash rent for buildings to cover his cost of depreciation, insurance, repairs, taxes, and interest on investment.

Rental bushels. You should list the amount of the "king crop" to be paid per acre as rent. By multiplying this amount by the expected price of the crop, a rough idea of the rental per acre can be made. If the price is expected to be $1.00 per bushel, the cropland rent is $16.00 per acre; pasture and hay $8.00, and lot rent $12.00.

Total bushels "king crop." Here you list the total crop rent for each class of land. Thus, 200 acres of cropland at 16 bushels of "king crop" per acre would total 3,200 bushels. When added, the rent for all kinds of land totals 4,520 bushels of "king crop." This is an average of 12.2 bushels per acre, or at $1.00 per bushel amounts to $12.20 an acre.

Consider crop insurance. You may want to take out crop insurance because the flexible rent does not vary with local conditions (floods, hail, etc.) except as they affect county averages. Also, the rent does not vary with your management—you can make mistakes.

Still, your risks are less than those of either a fixed cash renter or an owner operator, who have greater freedoms but also all the risks.

Get rental form. You can get a flexible cash rental agreement form from your county extension agent or the U.S. Department of Agriculture. Such forms can be inserted in any otherwise satisfactory lease.

"He was about halfway through the report on the new farm program. . . ."

FREE for YOU

THESE materials are free! You can get a *single* copy of any or all of them by mailing the coupon below. Just circle the items you want and send your *complete* address.

68—Liquid Manure Systems—This two-color booklet discusses the planning and operation of a liquid system and can help a farmer or rancher to get more nutrients to his land. The booklet is divided into three sections; benefits, storage, and management. Much of the information is in easy-to-understand diagram and chart form. (International Harvester Company)

69—Feeding The Performance Horse—To a horseman, feeding a horse is still more art than science. However, to feed horses economically you need to know what nutrients are required in a horse's diet. This brochure explains in detail what minerals and vitamins are necessary when supplementing homegrown grains and roughages. It also provides many helpful management hints. (Merck & Company, Inc.)

70—Seal-Vac Vacuum Silage Unit—For the answers to the many questions concerning vacuum storage of silage or high-moisture feed grain, consult this descriptive publication. Besides discussing the advantages of vacuum storage, the booklet shows and explains the step-by-step operational procedure for filling the storage unit. (Monsanto Company)

71—More Income Per Acre—This booklet explains how irrigation can increase yields and profits for crop farmers. First, with many pictures, the booklet shows you where and why irrigation is useful. Next, it describes the various types of portable sprinkler systems and their main advantages. The booklet comes complete with a chart of pipe sizes. (Reynolds Metals Company)

68 69 70 71

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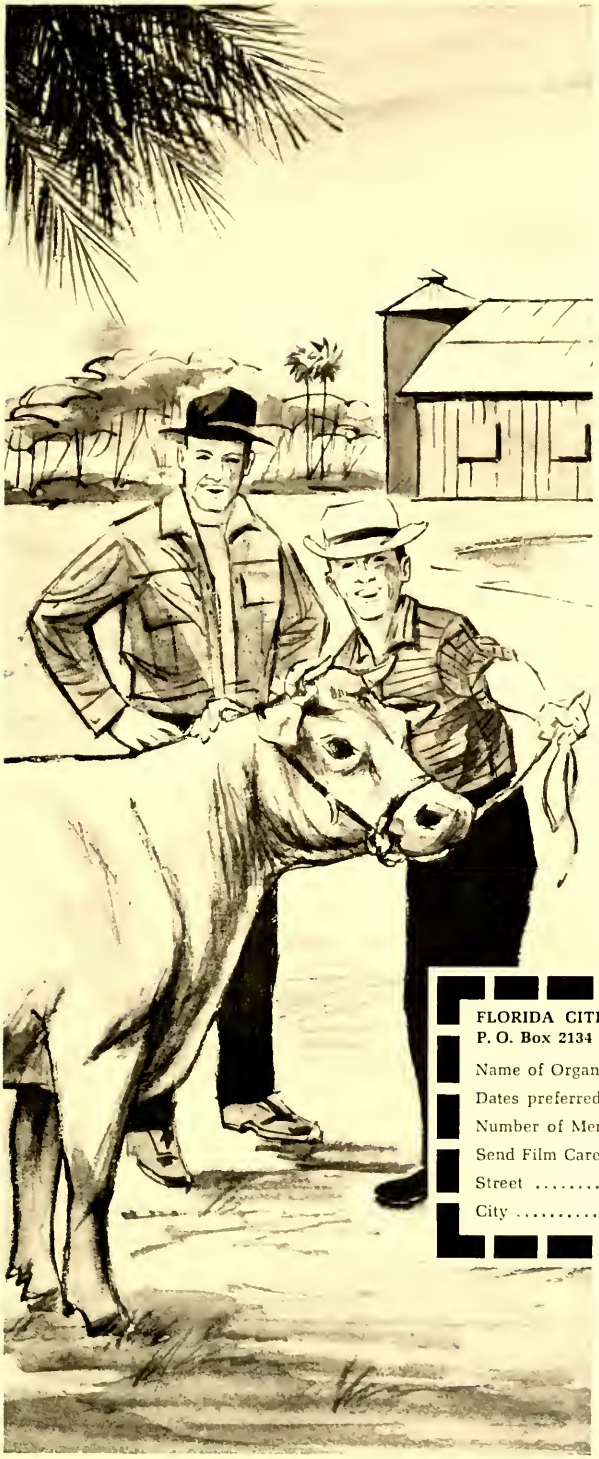

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"Beef" Up Your Herd

A cattleman with 25 years of experience tells what FFA members should look for when selecting modern type beef cattle for a farming program.

By Richard A. George

Registered beef cattle breeders are devoting their full attention to one of the most drastic changes in their vocational history. After years of producing cattle primarily on a type basis, breeders are now raising cattle that will put on economical gains for future buyers. The beautiful impractical champions that literally waddled in and out of the show rings during past decades are inevitably doomed in the competition of tomorrow.

Retailers no longer want that tallowy critter that captured the hearts of judges in former years. They are seeking trim, muscular cattle. But, before any desired conformation can be attained, cattlemen must first know what is preferable and how to produce this desirable animal.

Various breed associations are now conducting education sessions for their members to teach breeders what they must do to meet the retailer's demands. These sessions plus experience, feeder day programs, and carcass evaluation demonstrations have influenced the author and can provide guidance to FFA members in the selection of future beef cattle.

Although other characteristics need consideration, the main economical qualities to look for in selecting steers, heifers, or herd bulls in the future are good growth, trim briskets and throats, natural muscling, and a wedge-shaped middle. Another important visible guide is heavy boned legs. If you can locate beef cattle that possess these physical characteristics, chances are good that they will mature into the type necessary to meet modern standards.

Steer A, the modern calf, possesses a trim throat and brisket. Notice also that the modern beef animal exhibits bulging muscles in the shoulders and forelegs. In contrast, steer B carries excessive waste fat in the region of the throat and brisket.

All muscling in cattle should be solid, never flabby when handled by a judge. As a guide, Dr. R. E. Hunsley of Purdue University states that the size of the cannon bone in the front leg indicates a positive relationship between heavy bone and superior muscling qualities.

The modern beef calf's middle looks trim and straight barreled from the side, while the side of steer B shows too much fat in the flank. Steer B also displays an undesirable bulging rear quarter. The hind legs of steer A are straight and heavy boned, setting back on the corner of the quarter. This is highly desirable and, just as in front, a heavy hind leg is indicative of natural muscling.

Today the modern animal is receiving less criticism in the show ring for cutting-in behind the shoulders than in the past. A slight dip in the heart girth, shown in Fig. A, is now acceptable if the shoulder and forearm muscling is sufficient. Fig. B displays the old type with a well-filled heart girth, but does so because of excess fat.

Fig. A also illustrates that the middle of the modern beef animal should be wedge-shaped. Starting from the dip behind the shoulders, the middle widens to the rear rib section. The rear rib should spring out nearly as wide as the hip bones. In selecting breeding stock, look for animals with plenty of length between the hips and pin bones.

The rear view of a modern beef carcass, Fig. C, is a bit cut-up in the twist and does not have a smooth tail head. The area surrounding the tail head, nevertheless, must show firm, smooth muscling. Former judges wouldn't have

Steer A

Steer B

Fig. A

Fig. B

Fig. C

Fig. D

dreamed of crowning a champion with a high tail setting and a deep, full twist. A rough or bony tail region is frowned upon by any judge, modern or old. Carcass research reveals that the full twist, shown in Fig. D, is filled with tallow and very little meat is derived from a level tail head.

The modern carcass exhibits extreme width between the hind legs in comparison to the old type. This portion of the hind quarter is most valuable to retailers, and they will pay the top price for animals with extra wide muscling in this section. Notice also that the widest point on the modern beef animal is the muscling running down the sides just above the hind legs. Some of the best cuts of meat are taken from this fullness over the top of the rump.

Without a doubt, many FFA members reading this article own herds of beef cattle that fail to meet future standards. You aren't alone. Countless prominent breeders throughout America have the same undesirable wasteful cattle in their own herds. However, as a registered beef cattle breeder, do not foolishly dispose of the fine cattle you presently own. Changing type is a challenge to you, not a threat.

Conversion will require patience and a carefully planned breeding program, but learn all that you can about the coming cattle and cattle markets, establish a model animal so that you know exactly what you are trying to produce, and critically select all of your future breeding stock.

Go In the Snow

TOBOGGANING has changed. "Old Dobbin" has been put to pasture, and the modern day version of the bobsled is a motorized vehicle that can go zipping along at speeds of 45 miles per hour. The snowmobile has many uses. Fun and sports head the list.

The Roseau, Minnesota, FFA Chapter includes "snow catting" as a chapter meeting activity. The FFA members meet at the ag department for an afternoon of racing, tobogganing, high jumping, and just driving the machines around. According to Elwin Leverington, advisor, some of the members have developed into expert drivers and entered racing competition in the Roseau Sno-Mo-Cade celebration.

Roseau FFA members have also found that fox hunting can be a lot of fun on their snowmobiles. They work in pairs with one member in hot pursuit of the fox while the other heads it off if it breaks for the woods. After an exciting chase at high speeds, the fox is caught and quickly dispatched. The pelts bring in gas and spending money. Wolves can be hunted in the same manner, according to Leverington, but are harder to catch, being faster, more tricky, and dangerous as they often attack the snowmobile driver after being chased.

Snowmobiles provide transportation around woodlot for Jeff Paul and Richard Stalboerger at Hibbing, Minnesota.

Dean Robinson and LeRoy Mattson of Roseau, Minnesota, FFA have proof that fox hunting on snowmobiles is effective.

SANTA IN A Blue Jacket

In Willcox, Arizona, many organizations annually distribute money, food, and clothing to poor families. The Willcox FFA Chapter previously served the community by repairing and giving toys to needy children at Christmas time. However, the FFA members found destitute families being left out and organized all the groups into one, the Christmas Basket Program.

The Elks, Women's Club, Knights of St. Christopher, Lambda Chi Omega Sorority, Lions, Rotary, Veterans of Foreign Wars, American Legion, Kiwanis, school and county nurses, Volunteer Firemen, FHA, individuals, and business firms with the FFA acting as liaison between local grammar, junior high, and senior high schools set up the basket program in the high school cafeteria. Everyone helped in their own way —man power, 9 trucks, 125 frying chickens, 120 dolls, toys, clothes, 800 cans of food, $800, publicity, and so on.

The first Christmas Basket Program helped 56 families with 253 children. According to the chapter advisor, Mr. Page Bakarich, the community had over $100 left for an emergency fund which furnished barefoot children with shoes.

Roger Thomas, Willcox FFA president, Becky Wilson, FHA president, and Betty Kendall of the CowBelles fill baskets for the Christmas program.

All students in grades 7 through 12, faculty members, cooks, and janitors rallied to a call for funds by the Future Farmers of America at Gaylord High School in Minnesota. The funds provided Christmas gifts for the children in mentally retarded homes last season.

To promote the drive the FFA chapter doubled the largest single donation by the senior class and came up with $432.

Mr. Leo Lick, the Gaylord FFA advisor, says, "We hope that other chapters in the state will join with us in the Christmas program for the mentally retarded as we have for Camp Courage, a camp for crippled children."

Gordon Schmidt, Dale Husfeld, and Mr. Leo Lick, Gaylord FFA advisor, count funds for the mentally retarded.

Future Farmers at Fremont High School in Los Angeles, California, make wreaths and floral arrangements for the holiday season. Last Christmas this chapter of just over 20 boys sold some 250 decorative pieces.

Under the direction of Mr. Joe Stark, the FFA members take a trip into the high country to collect pine cones, greenery, and other seed pods.

After the Fremont FFA members cut and spot weld wire into rings, they make bows from red ribbon and paint the cones and pods. A week is set aside for assembling and arranging the materials and then comes the big job, selling. As a Christmas present, the FFA members give wreaths to people who supported the chapter during the year.

From left, William McCaleb, Jr., Bobby Beckum, Robert Willcot, Douglas Warrell, and Alvin Williams make a large cone wreath for the Christmas dance at the Fremont High School.

The Palmetto FFA Chapter of Williamston, South Carolina, has been in charge of the annual Williamston Christmas park display for the past four years. About 75 exhibits are on display. Local churches, businesses, clubs, organizations, schools, and individuals join hands in providing a bit of pleasure and happiness to others.

The park is designed as a night attraction and opens each season with the arrival of Santa. Attractions consist of a manger scene with live donkeys and sheep, booths, paintings, murals, cutouts, and decorated doors, all portraying the holiday season.

Besides planning the exhibit area, the members of the Palmetto FFA construct animated exhibits. Such things as a life-size Santa Claus climbing down a chimney or a sleigh and reindeer landing on a roof bring delight to many. Mr. D. R. Chastain, chapter advisor, serves as general chairman of the celebration.

In Rush City the FFA chapter, under the direction of Mr. Douglas Hanson, FFA advisor, conducted a drive to collect gifts for the mentally retarded at the Cambridge State Hospital near Rush City, Minnesota.

They collected over 75 gifts which were then brought to the hospital the week before Christmas, 1967. Gifts were collected by placing a donation box in a local drug store. Also each member brought a gift to the December FFA meeting.

Donald Bengston, drive chairman for the Rush City FFA, presents gifts to workers at the Cambridge State Hospital.

The Lower Dauphin FFA and FHA Chapters in Hummelstown, Pennsylvania, bring happiness and joy to less fortunate youngsters in the form of a Christmas party.

Toys are collected in the fall and repaired in the farm shop by FFA members. FHA girls wash and curl the dolls' hair and make tiny dresses. After wrapping the presents, the FFA and FHA members plan the activities.

Santa arrives with many helpers and passes out gifts to the boys and girls. The happy children play games and enjoy refreshments with the chapter members. This is truly Christmas.

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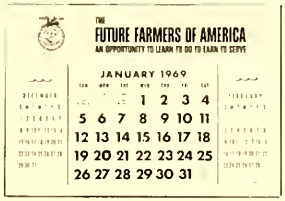
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THE CHAPTER SCOOP

news, notes, and nonsense from everywhere

by Jack Bitzer

Milbank, South Dakota, FFA played 15 games in the city softball league this summer. But only won four. Keep in there tigers!

N-N-N

Members of the *George Hildebran,* North Carolina, Chapter are raising money to buy some recreation equipment.

N-N-N

Three years in a row—1st place educational exhibit at state fair. Work of *Chariho,* Rhode Island, FFA.

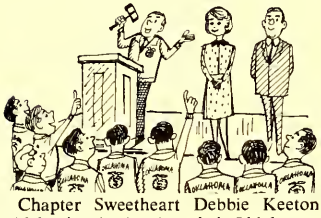
N-N-N

Eugene Thim, *Arickaree,* Colorado, member won second place with his "sweep" machine(?) at the state fair.

N-N-N

Hatchery is fund-raising project of the *Hessmer,* Louisiana, Chapter. Sell 30 thousand chicks a year in their community.

N-N-N



Chapter Sweetheart Debbie Keeton sold for $20 in the *Ninnekah,* Oklahoma, Chapter's slave auction. Advisor Lowe brought $17.

N-N-N

Star State Greenhand of Arizona FFA is a member of *Yuma* Chapter—**Kurtis Stewart.**

N-N-N

Clyde Flory, Brentsville, Virginia, came out in third place after a written exam and demonstrating his tractor driving ability at state convention.

N-N-N

Columbus and *Absarokee,* Montana, FFA and FHA Chapters held massive cleanup drive along highway between the two towns. Got 8 loads of trash.

N-N-N

Community service project of *Grant,* Nebraska, FFA was cleaning out and remodeling old poultry building at county fair grounds.

N-N-N

Many members of *Maynard,* Iowa, Chapter were busy this summer helping rebuild their town after the May 15th tornado.

N-N-N

Talawanda, Ohio, FFA presented a men's fashion show at a recent meeting.

At local fair, **Jerry Payne** took grand champion market lamb. **Dennis Prosperi** had reserve champ. Both *Madera,* California, members had broken legs.

N-N-N

Twelve seniors of *Minot,* North Dakota, FFA conducted a mock board of directors meeting to a crowd of 400. Earned $50 for chapter.

N-N-N

Allan Whetzel, James Whitlock, and **Greg Fertig** made up Mineral County judging team that won sweepstakes in the West Virginia vo-ag judging contests.

N-N-N

Blue ribbons for *Columbus,* Indiana, members **Glenn Meyer** and **Greg Burbrink** for their shop projects at state fair.

N-N-N

Members of *Stillwater,* Minnesota, FFA served lunch to guests for electrical power company at farm show.

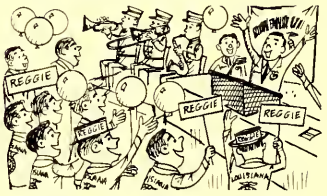
N-N-N

Douglas Reid and **Jerry Harbour** of *Comanche,* Texas, Chapter were selected as state talent team winners.

N-N-N

Second place winner of Pennsylvania ag salesmanship contest for 1968 was **Jeffrey Segan** of *Parkland Union* Chapter.

N-N-N



Past chapter reporter of *Hathaway,* Louisiana, FFA, **Craig Brown,** reports that the chapter had a bang-up election in selecting the new officers for the chapter. **Reggie Ringuet** is new president.

N-N-N

Terry Turner, *Onalaska,* Washington, FFA'er received the Scotch Highland heifer in the chapter's rotating project.

N-N-N

Cabbage project sponsored by *Elloree Training School,* South Carolina, Chapter provides experience in produce operations and salesmanship.

N-N-N

A turtleneck shirt looks great on young men. But not with an FFA jacket.

N-N-N

FFA WEEK plans should begin now!

Members of *Fife,* Washington, FFA have adopted a six-year-old Greek child through Foster Parents Plan, Inc.

N-N-N

Jack Kaltenberg, Waunakee, Wisconsin, has a 20-acre corn research plot. Raises 750 varieties of corn.

N-N-N

Scholarship pins went to **Mark Esplin, Gerry Hoyt, Vern Cox,** and **Mack Roundy.** These *Valley,* Utah, members earned this award with A averages.

N-N-N

Billy Richards received the harmonica champion pennant at Florida State FFA Convention.

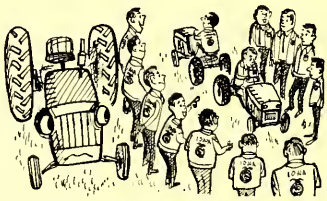
N-N-N

Green Ridge and *Pilot Grove* Chapters handled ushering in grandstand throughout the Missouri State Fair.

N-N-N

Hamilton, Mississippi, Chapter built a 8400-plant greenhouse, 20′ by 24′, for $125. Sell early tomato and pepper plants for a dime.

N-N-N



Shelby, Iowa, Chapter sponsored a tractor pull. But the garden tractor pull created more excitement than the big tractors.

N-N-N

David McKinney reports that *Merced,* California, FFA'ers caught 250 fish on their annual fishing trip.

N-N-N

Brooksville, Kentucky, FFA reports: Held a camping trip. Invited freshmen to acquaint them with FFA.

N-N-N

Two *Wynnewood,* Oklahoma, members showed at the American Royal.

N-N-N

Limestone, Maine, Chapter is paying one dollar toward new FFA jackets.

N-N-N

Have you heard about the National Leadership and Citizenship Conference for chapter presidents next summer in Washington, D. C.?

N-N-N

Let's share the wealth. Send me news, notes, and nonsense from your chapter's activities. Then other chapters and members can "borrow" the ideas!

Greg Bamford speaks to the audience during the FFA pageant at the "Big E." Each State Farmer carried a sign.

In the safe tractor operating contest the FFA member must attempt to back a two-wheel implement into a stall.

Governor John H. Chafee of Rhode Island presented a $300 purebred registered Holstein heifer to John Peila, Jr.

The Eastern States Exposition

The Eastern States Exposition held at Exposition Park in West Springfield, Massachusetts, is pledged to promote and advance industry and agriculture in the Northeast. Although the "Big E" is both a local and regional show for the six New England states, FFA activities for the North Atlantic Region play a big part in the success of the annual event.

This past September 13-15 were the dates of the FFA activities. The entire exposition lasted for nine exciting days, September 13-22.

The 1968 FFA program featured educational and landscaping exhibits, an awards dinner, and the FFA parade and pageant. FFA contestants participated in dairy cattle showmanship, judging, speaking, and tractor driving. Another attraction was the FFA Children's Barnyard.

Each fall at the Eastern States Exposition the North Atlantic Region selects its speaking representative for the national contest at the FFA Convention in Kansas City. Charles L. Hannum from Mount Alto, West Virginia, won the honor with a talk on "The Farmer's Dilemma."

All states from the North Atlantic area are permitted one entry in each judging contest. The dairy products judging was won by the Vermont team. The Rhode Island team took top honors in the poultry judging, while the FFA team from New York won the dairy cattle judging contest. The Delaware team placed first in the livestock judging. Top individuals in the tractor operating and showmanship contests were George Bryan of Broadway, New Jersey, and Glen Dickey from St. Albans, Vermont, respectively.

First place exhibits at the "Big E" earned $150 and $125, respectively, for local chapters. These winning chapters were Norfolk FFA, Walpole, Massachusetts, in landscaping and Rockville FFA, Rockville, Connecticut, with an educational exhibit.

Each year at the Eastern States Exposition the North Atlantic Region chooses a Regional Star State Farmer from the 12 State Star Farmers of their respective states. The North Atlantic Regional Star State Farmer for 1968 is John Peila, Jr., 20, of Manchester, Connecticut.

John belongs to the Rockville FFA Chapter and operates a 700-acre farm in conjunction with his father and uncle. John's father and uncle also import and sell between 2,500 and 3,000 Canadian dairy cattle annually. John owns over 40 head of purebred Holsteins and receives a wage for his work in the import business. Many times John buys, sells, and ships the cattle completely on his own.

Many big name entertainers perform at the Exposition. This year's top attractions included Louis Armstrong, Buck Owens, Faron Young, and Porter Wagoner. Myron Floren, Jo Ann Castle, and Natalie Nevins of "The Lawrence Welk Show" and the Royal Canadian Mounted Police Band provided additional shows for the FFA members and the entire family to enjoy. Other highlights of the event were the All-American Championship Horse Show and the RCA Championship Rodeo.

Richard Jones of Hamilton, New York, national FFA vice president, North Atlantic Region, presided at the awards dinner. Greg Bamford, national FFA president of Haxtun, Colorado, assisted with the award presentations. Governors in the Northeast also attended the "Big E."

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THE FFA

MONTANA—Members of the Yellowstone FFA Chapter contributed their talents to help conduct a March of Dimes "horseback ride."

For several years, ranchers and cowboys around Billings, Montana, have been holding "rides" to aid the March of Dimes. Ranchers from all the areas surrounding Billings congregate into groups and "ride into Billings" to call attention to contributing for those who cannot ride because of physical handicaps.

The plan is to follow the highways with "outriders" in cars preceding the riders and following the groups to stop as many fellow travelers as possible for contributions.

Last year the Yellowstone Chapter offered their services to this project. The chapter was asked to provide cars to pace and escort the riders. The FFA chairmen then contacted the Highway Patrol to check on legal and safety points. The Patrol furnished red warning flags to be attached to the cars.

The day of the ride, January 28, 1968, was a cold one—ranging from 13 degrees below zero to about 10 degrees above with 15-30 miles per hour wind accompanying the light snow. One hundred riders participated.

The FFA chapter furnished hot coffee for the riders, and chapter members relieved some of the riders so they could warm up in the members' cars.

A total of $1,206 was received. For their efforts the chapter received special radio coverage during FFA Week.

FFA members led the way for riders in the March of Dimes "horseback ride" to call attention to people to contribute.

OHIO—Newton FFA and FHA cooperated by jointly sponsoring a vocational fall fair. The event was held immediately following a parent-teachers soup supper.

Nearly 1,000 exhibits were displayed in FFA classes (grains, hay and silage, vegetables, fruits, eggs, and farm shop items) and FHA classes (cakes, cookies, pies, candy, bread, canned foods, clothing, needlework, cake decorating, and flower arrangements).

Advertisement of the event was attained through the local news media and a fall fair book sponsored by community businessmen. Ads in the fall fair book were sold throughout the community with the proceeds going towards its printing and the purchase of first, second, third, and fourth place ribbons for each entry, rosettes for class winners, and trophies for first and second place sweepstakes winners. First place winners in FHA classes were awarded an engraved silver tray.

The evening entertainment consisted of a variety show and a 50-50 dance.

FFA boys and FHA girls shared the work of selling tickets, working in the concession stand, operating games, and developing the variety show and dance. The organizations shared the profits. *(Jim Angle, FFA Chapter Reporter)*

WASHINGTON—It was Saturday night. Somewhere in the distance a coyote howled its lonesome call. Under the beautiful full moon, six skiers plodded their way up the mountain, led on by a spectacular display of northern lights.

Early in the morning, the small group of FFA members finally reached the top. After a yarn or two around the dancing flames of a friendly fire, the boys donned their skis for the downhill run. With an occasional pileup, the

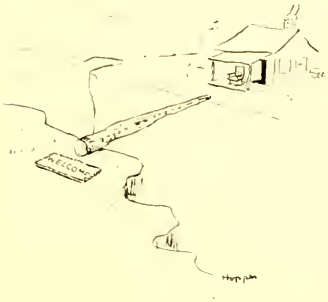
IN ACTION

boys made their way down the snow-covered slopes, glistening in the moonlight. The six miles back to the car went as if it were just a short walk. The group arrived back home just as some of the local residents were beginning to stir. Tired but happy, the boys prepared for a nice long rest.

Is your chapter looking for something different to do? Then maybe you would be interested in something like this. The Twisp, Washington, FFA Chapter found this to be a very thrilling and worthwhile form of recreation. Sometimes it gets to be hard work. But it is worth every minute, just being under the clear blue skies of this great country filled with sunshine, drinking from a clear cold, rushing mountain stream, and studying nature's habitat.

On one trip up Mt. Stuart (elevation 9,470 feet) in the heart of the Northern Cascades in Washington, the group stopped to rest not more than ten feet from a big log. They were barely situated when a huge bull elk with a massive rack of antlers jumped up and went tearing through the brush, scaring all of the group!

These are just some of the encounters Twisp Future Farmers have had with wild animals and nature on their many trips. Perhaps your chapter is not situated in such an exciting natural wildlife area. However, no matter where you live, somewhere close by there are places to hike and sleep out under the starry skies.



These campouts and hikes have helped to make the chapter stronger by giving members a chance to work together and rely or depend on the other guy to do his part. *(Dan Siegel)*

Twisp FFA members stop and inspect an elk wallow during their climb for Mt. Stuart located in Washington Cascades.

These loaded down FFA explorers atop the pass and heading for 9,470 feet. Mt. Stuart visible in the background.

Parliamentary Procedure

In the October-November issue, the following question appeared from Mr. Charles L. Harn of Spoon River Valley FFA, Fairview, Illinois: "When a main motion and amendments are before the chapter, is the motion to postpone indefinitely in order?" The answer given was in the affirmative. This was in error. The motion to postpone indefinitely can be applied only to the main motion. Since amendments were pending, they would have to be disposed of, then the motion to postpone indefinitely would be in order.

Appreciation is expressed to Mr. Paul M. Day, certified parliamentarian, American Institute of Parliamentarians, and teacher of vocational agriculture at Faribault, Minnesota, for being the first to call attention to the error.

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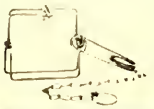

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Bart Starr, Green Bay quarterback.

SPORTRAIT

By Stan Allen

The October 28 game between the Green Bay Packers and the Dallas Cowboys was a must game for both teams. The Packers had a two-win, three-loss, one-tie record while Dallas was pro football's only unbeaten team. The game's first 28 minutes were all Dallas with a ten to nothing lead. Then the Packers' All Pro quarterback, Bart Starr, began to work at what he does best, pick apart a fine defensive team. He passed for one touchdown in the final minute of the first half and came back with three more in the second half to give the the Packers a 28 to 17 win. Starr completed 17 of 25 passes on his first return to the lineup after missing several games because of injuries.

Former coach Vince Lombardi drafted Starr in 1956 from the University of Alabama where he earned four letters in an outstanding career. He led the Crimson Tide to a Cotton Bowl victory over Syracuse as a sophomore and was called the best passer in Alabama history. As a youngster he won All American High School honors on the Sidney Lanier High School team in Montgomery, Alabama. Bart joined the Packers in 1956 and served his apprenticeship learning from Tobin Rote and Babe Parilli. In a part-time role during his first four seasons he completed 289 of 550 passes for a fine 52.5 completion percentage. Those passes gained 3,661 yards and 14 touchdowns. Bart started and won the last four games of 1959 to win a starting job in 1960 and has been starting quarterback since. He led the Packers to an eight-win, four-loss record in 1960 and a Western Division title.

Bryan Bartlett Starr looks smaller than his 6-foot 1-inch, 200-pound frame really is. He doesn't have a flair for throwing the long bomb in a Johnny Unitas style because he has not had to rely on that type of game. The Packers had Jim Taylor and Paul Hornung to prove Coach Lombardi's theory that running was the name of the game. This kept the quarterback from throwing many passes, and the early book on Bart was that he might not make it as a pro passer. He proved this wrong and has given the Packers a more balanced attack. Starr is regarded as one of the best play callers, a super strategist of football, an excellent ball handler, and has an amazing ability to call checkoffs at the line of scrimmage.

After a fine season in 1961 when he led the Packers to a divisional and world title, he came back to repeat the feat in 1962. That year he completed 178 of 285 passes which gained 2,438 yards and 16 TD's. His 62.5 completion percentage, an NFL high for the year, was fifth highest in league history. A broken hand kept him on the bench for four games in 1963, and he dropped to seventh in league passing with 132 completions out of 244 tries for 1,855 yards and 15 TD's. He regained his form in 1964 to win his second NFL passing title, hitting on 163 of 272 passes for 2,144 yards and 15 TD's.

After another good year in 1965, Starr came back to have his best year in 1966 when he completed 156 of 251 passes for 2,257 yards and 14 TD's. His 62.2 percent completion mark led the pros, and he had only three passes intercepted all season. He was named the NFL Most Valuable Player, and the Packers won another division and world title. Bart was hit with minor injuries early in 1967 but led Green Bay to a division title, completing 115 of 210 passes. His boldness personally won the Packers an appearance in the Super Bowl. Green Bay was losing to Dallas in the NFL playoff game with only 13 seconds left and had the ball a foot from the Dallas goal line. Everyone in the park expected to see a pass or field goal try, but Bart took the ball from his center and plowed into the end zone for a touchdown. His play in taking the Oakland Raiders' defense apart in the Packers' 1968 Super Bowl win earned him the game's Most Valuable Player award. He won the honor in the first NFL-AFL world title game in 1967.

Bart Starr has played in 154 games during his 12 years with Green Bay and has completed 1,443 of 2,530 passes for an NFL record of highest percent of completions during a career with a mark of 57 percent. His passes have gained 20,009 yards for a fine 7.91 yard average and 120 touchdowns. His 8.68 yards per throw average in 1967 was an NFL high as was his 8.99 yard average in 1966. Only 108 of his passes have been intercepted, an NFL record, and he holds an amazing record of throwing 294 consecutive passes without an interception. Bart has quarterbacked the most victories in NFL championship play with five and, of course, the only two wins in the NFL-AFL interleague playoff games. He was named to the NFL All-Star team in 1960, 1961, 1962, and 1966. *The Sporting News* named him to their NFL Western Division All-Star team in 1961 and 1962 and the NFL Player of the Year in 1966. In NFL championship play Bart has thrown 145 passes with just one interception and has a fine 57.9 completion percentage. He is a good runner too, with a fine lifetime mark of 1,113 yards gained on 214 runs—a good 5.2 yard average.

Bart Starr has only three personal passing titles, but he has led his team to five division titles, four world titles, plus two interleague wins. Even his severest critics must agree that the seventeenth-round draft pick is one of pro football's best quaterbacks.

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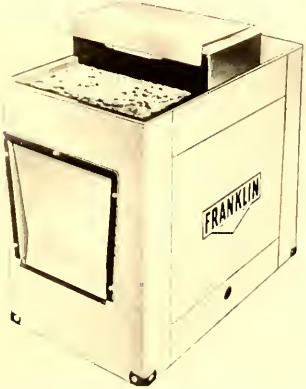
A. New Holland's Model 352 grinder-mixer features an unloading auger which can be lowered 10 degrees below the raised base for reaching lower feed bunks. (New Holland)

B. A four-blade rotary snow plow has been added to the Uni-System equipment line. Features include double auger pick-up, split auger blades, and a hydraulic spout. (Avco New Idea)

C. The new Model 3300 Powr-Set moldboard plow by Case with a clearance of 12 inches will lift plow bottoms over rocks while the operator continues plowing. (J. I. Case Company)



D. This combination waterer has ½ inch valves and two extra large self-closing hog doors. It will provide fresh water for 40 head of cattle and up to 120 hogs. (Franklin Equipment)

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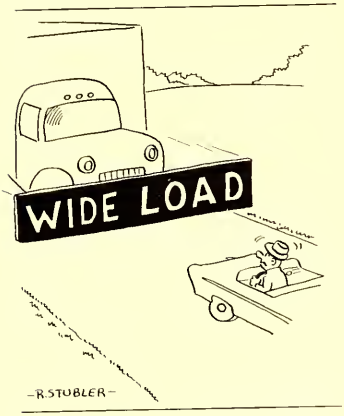
Name
Street
City State Zip

HAVE YOU HEARD THE ONE ABOUT

In a California market a young boy stood in front of the fruit counter stuffing grapes into his mouth as fast as he could. No parent was in sight, and the inexperienced summer checker stood helplessly by. Suddenly a woman appeared, stared in horror at her son, and shouted, *"Billy, not so fast."*

Thomas LaMance
Auburn, California



Psychiatrist: *"A good deal of your adult problems stem from events that occurred when you were young."*

Patient: *"I know. When I was a baby, my mother hired a woman to wheel me about, and I've been pushed for money ever since."*

Joel Bowles
Summer Shade, Kentucky

Barber to customer: *"What would happen if I cut off your right ear?"*

Customer: *"I wouldn't hear so well."*

Barber: *"And if I cut off the other ear?"*

Customer: *"I wouldn't be able to see."*

Barber: *"What do you mean you wouldn't be able to see?"*

Customer: *"My hat would fall down over my eyes."*

Robert Miller
North Java, New York

Traffic cop: *"When I saw you driving down the road, I said to myself, 'at least 55.'"*

Lady: *"Well, you're wrong. It's only this hat that makes me look older."*

Bobby Hailey
Frost, Texas

Mother: *"Well, Joe, how are your marks?"*

Joe: *"They're under water."*

Mother: *"What do you mean?"*

Joe: *"They're under C level."*

Fred Johnson
Magnolia, Arkansas

Farmer on the phone: *"Weather Bureau?"*

Weatherman: *"Yes?"*

Farmer: *"What are the chances of having a shower tonight?"*

Weatherman: *"It's all right with me. If you need one, take it."*

Hubert King
Carrollton, Virginia

"Call me Tex," drawled one cowboy to another.

"You're from Texas, too, eh?"

"Nope, I'm from Maryland, but who wants to be called Mary?"

James D. Anderson
Miami, Texas

Little boy: *"Dad when I grow up I'm going to marry Grandma."*

Father: *"You can't do that, son. She's my mother."*

Little boy: *"Well, you married mine."*

Ronald Robinson
Godwin, North Carolina

First husband: *"What would you do if your wife wanted to drive your new car?"*

Second husband: *"I wouldn't stand in her way, not even for a second."*

Eddie Johnson
Orlando, Florida

Shopkeeper: *"I have two parrots; one is $50, and the other is $25."*

Customer: *"What's the difference?"*

Shopkeeper: *"Well, the one for $25 has a bump on his beak which has to be filed off. But you have to be careful not to hit the vein."*

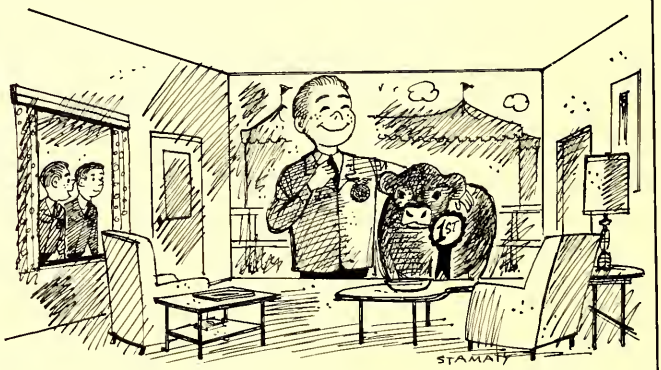
Customer: *"I'll take him."* So he goes down to the hardware store, buys a file, and goes home real happy. But the next day he's back at the shop, looking real sad.

Shopkeeper: *"Did you hit the blood vein?"*

Customer: *"No. I squeezed him too hard in the vise."*

Don Depinet
North Springfield, Pennsylvania

Charlie, the Greenhand



"I can tell you this—photo murals are expensive."

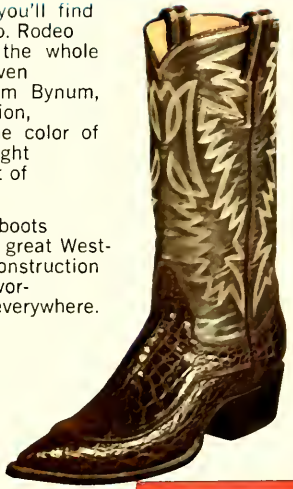
The National FUTURE FARMER *will pay $1.00 for each joke selected for publication on this page. Jokes must be submitted on post cards addressed to The National* FUTURE FARMER, *Alexandria, Virginia 22306. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.*

WHERE THE ACTION IS!

Year 'round, across the Nation, you'll find lots of action any place there's a rodeo. Rodeo promises excitement and color for the whole family. Cowboys like Dean Oliver, seven times Calf Roping Champion and Jim Bynum, four times Steer Wrestling Champion, provide a thrill a minute. Clowns, the color of the Grand Entry and pretty girls in bright Western apparel add to the excitement of "America's Own Sport."

At any rodeo you'll find Tony Lama boots because Lama boots are a part of our great Western heritage too. Lama's handmade construction and authentic styling make them a favorite with rodeo fans and participants everywhere.

Style 39-J-3
Aniline Tanned Benedictine Kangaroo with genuine Lizard wing tip.



Style 516-X-3
Chocolate genuine Alligator with rolled edge Algonquin.

FIND YOUR TONY LAMA DEALER IN THE YELLOW PAGES IN MOST WESTERN STATES

OR WRITE FOR NAME OF YOUR NEAREST DEALER

1137 Tony Lama St. ★ El Paso, Texas 79915

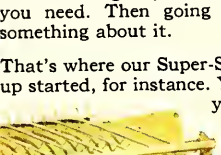
Tony ★ Lama CO. INC.

Peace of mind with each piece of equipment.

That's what New Holland
means by this promise:
Practical in design, dependable in action.

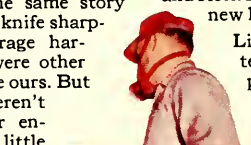
THE fact is, it's a promise we've been keeping for years. It comes from listening to you, learning what you need. Then going and doing something about it.

That's where our Super-Sweep pickup started, for instance. You told us you thought too much hay was being left on the ground. We checked; it was. The answer was a pickup with 120 closely spaced teeth. Now you pick up the hay you used to pass up: as much as three *extra* tons some days.



It was much the same story with the built-in knife sharpener on our forage harvesters. There were other sharpeners before ours. But you said you weren't satisfied. So our engineers designed a canny little ratchet to align the sharpening stone. Now you get a true bevel edge. Factory sharp.

And here's one more—all ours. We thought you'd like the idea of machines that stayed shiny longer. Hence our spraying technique that makes a better bond between paint and steel. New Holland machines look like new lots longer than you're used to.



Little things? Maybe. But they tell a lot about the kind of people we are. And about our stubborn pride of craftsmanship that insists on making things well because that's really the only way to make them.

Practical in design, dependable in action. That's the way we say it. Peace of mind is what it means to you.

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NEW HOLLAND

Practical in design • dependable in action